PERSONALITY PROFILES OF NURSES WHO WORK IN INTENSIVE AND NON-INTENSIVE CARE UNITS

A THESIS

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CHAPTER I

INTRODUCTION

The intensive care unit setting is not only a special environment for the patient, but for the nurse who Well-trained and highly-specialized, the works there. intensive care nurse is a major contributor to the smooth functioning of the unit. However, she is often beset by a variety of problems as she must deal constantly and exclusively with the seriously ill. Demands are placed upon her by the high-tension atmosphere and hectic pace. She must not only have expertise in technical, judgmental, and decision-making skills, but also provide support and compassion to her patients and their families. In addition, the affect-laden stimuli of the activities of the unit itself pose a psychological threat: the repetitive exposure to dying or obtunded patients; the highly demanding work load; the necessity for, but often lack of, cooperation and support from physicians, co-workers, nursing administration; and the sense of failure and lack of gratification when a patient dies.

There are several possible reactions of the nurse in such an environment. She may become exhausted to the point where she must withdraw from the entire situation either physically, by leaving the unit, or mentally, by seeing the patient not as a person but as an object. It is also possible that the intensive care unit attracts the nurse who is able to withstand and is even challenged by the critical care setting. Or, she may be one who prefers to avoid personal relationships with her patients.

The intensive care unit is different from the nonintensive care setting in the types of patients it has and
the demands it places on the nurses who work in it. It
appears plausible that different personality characteristics of those nurses who work in intensive care areas exist.
This difference may be quantitatively measured by using an
objective psychological measure of personality.

Statement of Problem

The possibility exists that intensive care unit nurses are somehow different from nurses who work in other settings (Cassem and Hackett 1975). The environmental milieu of the intensive care unit may either attract a particular type of nurse for employment or mold a nurse into a specific type who desires to remain there. This study compared the personality characteristics of nurses who work in the intensive care unit with the nurses who work in non-intensive care units.

Statement of Purpose

The purpose of this study was to determine if differences exist in the personality characteristics of nurses who work in intensive care units as compared with the nurses who work in non-intensive care settings utilizing the Adjective Check List.

Background and Significance

Intensive care units have been established to provide an area where highly-trained personnel and complex equipment are concentrated for the purpose of reducing mortality and morbidity of patients with conditions associated with a high incidence of fatal complications (Beal and Eckenhoff 1969). The patient who is suffering from an acute failure in one of the major organ systems, (e.g., respiratory, renal, cardiac, and neural), needs constant close observation to monitor the signs and symptoms which signal changes in his internal system requiring quick and accurate treatment. Of necessity, the intensity of observation is constant and the pace is hectic and relentless.

The intensive care unit setting and the psychological implications upon patients have been the topic of many papers (Bishop and Reichert 1969; DeMeyer 1967; Kornfeld 1975). In recent years, the psychological

effects of the intensive care unit on the nursing and medical personnel have gained equal attention (Bilodeau 1973; Vreeland and Ellis 1969). However, most of the studies have been limited by either the qualitative description of the intensive care environment and its effect on the nurse-patient and nurse-nurse relationships, or the supporting evidence was obtained by questionnaire or surveys (Cassem and Hackett 1975). Stephney (1974) compared the perceptions of stress by nurses in a medical-surgical intensive care with those of nurses in a coronary care by developing her own stress scale based on a review of available literature. Similarly, Gentry, Foster, and Froehling (1972) compared the psychological responses of nurses who work in different types of intensive care settings and also those who work in intensive care settings with those in nonintensive care settings. Unlike the aforementioned studies, they utilized a set of standardized psychologic tests measuring self-concept (Tennessee Self-Concept Scale), depression (Zung Self-Rating Depression Scale), hostility and guilt (Buss-Durkee Hostility Inventory), and general personality pattern (Minnesota Multiphasic Personality Inventory). In general, the results of this study revealed that: (1) intensive care unit

nurses reported more depression, hostility, and anxiety than non-intensive care nurses, (2) there were no differences in the personality pattern of the intensive care unit and non-intensive care unit nurses, and (3) the psychologic responses on the various tests were associated with stress directly related to the intensive care unit situation itself. With this exception, no other attempt has been made to systematically and quantitatively assess the personality characteristics of nurses who work in the intensive care unit and those who work in the non-intensive care unit settings. More study is warranted, however, to identify the possible psychological factors involved when a nurse works in the intensive care setting. Indeed, "the quality of a patient's care, and hence, outcome, depends greatly upon the people providing that care, and the effectiveness of the latter is a function of their psychological state no less than their technical expertise (Hay and Oken 1972). Furthermore, as stated by Friedman (1972), nurses in the intensive care unit have responsibilities closest to those of physicians. Thus, full consideration needs to be given to the psychological aspects of the intensive care experience to better understand the conflicts and to evolve better ways of coping with them (Cassem and Hackett 1975).

Hypothesis

The null hypothesis was that there would be no difference in the personality characteristics of nurses who work in intensive care areas as compared to the nurses working in non-intensive care areas, as measured by the Adjective Check List.

Definition of Terms

The following definitions were necessary for the purpose of this study:

- l. Nurse an individual who has completed an accredited diploma, associate, or baccalaureate degree program in nursing and is currently licensed as a registered nurse to practice professional nursing.
- 2. Intensive Care Unit (ICU) general term used in reference to a specialized area in a hospital where acute care is given to critically-ill patients. For the purpose of this study, these specific units were used: coronary care unit (CCU), neuro intensive care unit (NICU), pulmonary intensive care unit (PICU), cardio-vascular recovery room (CVRR), and medical-surgical intensive care unit (MSICU).
- 3. Non-Intensive Care Unit (Non-ICU) included all areas in the hospital except those mentioned above and those contained in the out-patient clinics. These

areas are involved in providing general care for hospitalized non-acute patients. Areas were also referred to as "floors."

4. Personality Profile - configuration of a person's behavior reflecting his physical and mental activities, attitudes, and interests and corresponding to his adjustment to life (Freedman et al. 1973). This configuration was measured by the Adjective Check List (ACL) created by Gough (Gough and Heilbrun 1971).

<u>Limitations</u>

The following were seen as limitations to this study:

- 1. The population for this study was derived from only one institution.
- 2. The factors of age, sex, race, highest level of education, social economic status, previous nursing experiences and their duration in either ICU or non-ICU, present position, and degree of satisfaction with present position were not controlled but were examined.
- 3. With the exception of separating ICU's from non-ICU's, there was no control for types of patients or their diagnoses.
- 4. Staffing of each unit on the particular day the psychologic measure was administered was not controlled.

5. The size of the sample population consisted of sixty nurses. Such a small sample made generalizations difficult to formulate.

Delimitations

An attempt was made to control the following:

- 1. The working environment was categorized as either ICU or non-ICU by the definitions given.
 - 2. The hospital had both ICU's and non-ICU's.
- 3. Nurses were permanently assigned to ICU's or non-ICU's. Those nurses who rotated between ICU's and non-ICU's on a permanent basis were not included in the study population.
- 4. Administration of the ACL was scheduled for the same day for both ICU and non-ICU nurses.

Assumptions

This study was based on the following assumptions:

- 1. The environment of the ICU in a given hospital is different from non-ICU settings in the same hospital.
- 2. Personality may be affected by one's environment or a particular environment may attract specific types of personality (Freedman et al. 1973).
- 3. The ACL was validated and found to be a reliable measure of personality characteristics in individuals (Gough and Heilbrun 1971; Buros 1972).

4. The nurses included in the study were willing to cooperate.

Overview of the Chapters to Follow

Chapter II, the Review of Literature, discusses the relationship of personality to vocation, specifically the personalities of nurses as compared to others and the personalities of nurses in the various specialized areas. The ICU environment will be discussed in terms of sources of stress for the nurse and the manner in which she deals with them. Chapter III, the Procedure for Collection and Treatment of Data explains the method of data collection and the treatment of this data. Chapter IV, the Analysis of Data, describes the results and interpretation of the findings and of statistics chosen for use in this study. Chapter V, the Summary, Recommendations, Implications, and Conclusions, will discuss all the derived possibilities, their implications for nursing and will make suggestions for further study.

CHAPTER II

REVIEW OF LITERATURE

Introduction

It has been claimed that the quality of a patient's care depends not only upon the nurses' technical expertise but also upon her psychological state, i.e., personality (Hay and Oken 1972). In order to examine the personality of the nurse, the relationship of her personality to her vocational choice will be reviewed. After exploring the personality of the nurse, the unique environment of the ICU and of its stresses will be studied. The effects of the stresses upon the ICU nurse will be explored since her behavior and reactions in such surroundings reflect her personality.

Personality and Vocation

A fundamental principle of personality theory is that all behavior is an effort to reduce tension, i.e., stress, and to preserve homeostasis (Lazarus 1971). This principle is closely related to Darwin's theory of evolution emphasizing the process by which individuals with biologic attributes well-adapted to their environments are best able to survive. Although most of

the emphasis has been placed on external stimuli as determinants of behavior it is insufficient to fully explain behavior. Hence, psychologists give much of their attention to the stable attributes within a person as well, i.e., traits or dispositions which guide his actions or reactions (Lazarus 1971). One approach is to study the various psychological structures which make up the personalities of individuals and contribute to determining the vocations they choose, indeed especially those vocations that are associated with high levels of stress.

There are two aspects in examining one's personality and his vocation. It has been hypothesized that the vocation an individual selects depends upon his needs and role image, i.e., his personality-derived requirements (Tuckman 1968; Paiva and Haley 1971). On the other hand, it is also possible that social pressures within one's vocation directs his behavior into a mold appropriate to his defined role (Lazarus 1971). One's participation in his role is not incongruent with his personality (Lazarus 1971); in fact, the desired behavior is then accepted and made his own, or internalized. Thus, to some extent one's personality may be shaped by his vocation (Krall 1970).

In examining the first aspect - that the individual's personality may be a determinant in the selection of a vocation - numerous studies have compared the personality of nursing students to high school or college norms. There have been seven studies, assessing a total of over 1,000 nurses, using the Edward Personal Preference Schedule (EPPS), six of which were older studies cited by Adams and Klein (1970). All seven reported that nursing students scored higher than college norms on the need Preference scale (to get suggestions, to follow instructions, to praise others) and scored lower on the need Autonomy scale (to feel free to do what one wants, to do things without regard to what others may think). Six studies reported that nurses scored higher on the need Endurance scale (to complete any job undertaken, to work hard at a task). Five studies (Adams and Klein 1970) stated that nurses scored lower on the need Exhibition scale (to say witty things, to be the center of attention) and on need Dominance scale (to argue for one's point of view. to make group decisions). However, there have been many inconsistencies as well as direct contradictions in the findings. For example, of the six studies cited by Adams and Klein (1970), two reported that nurses scored higher on the need Aggression scale, while one reported that

they scored lower, and three reported no difference. Adams' and Klein's (1970) own study found no difference. In addition to intergroup differences and error inherent in the instrument used, Adams and Klein (1970) claim that these differences resulted from broader changes in personality across "generations of nurses, as well as from maturational changes within individuals." Their study compared EPPS results of fifty current nursing students to those from a comparable sample from the same setting tested a decade ago. The lower score of the current sample on the need Autonomy as compared to college norms was the only result that was replicated. Unlike the earlier sample the current group did not differ from the norm on the need Order or the need Endurance scales. Adams and Klein (1970) suggested that their results show a lessened concern among the current nursing students with routine, neatness, organization, persistence, and accomplishments. In addition, the current group scored higher on the need Nurturance whereas the earlier group showed no significant difference to the norm on this scale. The authors suggested that this reflected the growing concern with being kindly, helpful, and affectionate (Adams and Klein 1970). The nursing school experience itself may also contribute to differences in various studies of the EPPS scores. Stein (1969)

with their scores during their sophomore years. Students showed consistent changes over the sophomore to senior periods in three scales: higher Autonomy and Heterosexual and lower Endurance scores. In addition, the seniors of 1965 had higher Aggression and lower Deference, Intraception, Abasement, and Endurance scores. The author concluded, "The overall picture is one of conventionally-oriented young women, interested in feminine life goals in combination with a career" (Stein 1969). Her study also supported Adams' and Klein's contention that the entering nursing student is increasingly more autonomous and independent (1970).

Using another instrument, Hoffmann (1970) found significant differences on twelve personality scales of the Personality Research Form (P.R.F.) between 80 freshmen student nurses and the test manual norms. The nurses scored higher in Harmavoidance, Nurturance, Order, and Desirability, but lower in Affiliation, Aggression, Autonomy, Change, Dependence, Dominance, Impulsivity, and Understanding. Adams and Klein (1970) used the Institute for Personality and Ability Testing 16 Personality Factor Questionnaire (IPAT) in their study of fifty nursing students. The nurses were "more out-going than reserved,

more affected by feelings than emotionally stable, more serious than happy-go-lucky, more shy than venturesome, more sensitive than tough-minded, more suspicious than trusting, more unconventional than practical, more radical than conservative, and more tense than stable" (Adams and Klein 1970).

Other investigators have examined the personality factors which contribute to success in nursing school. Thurston and his colleagues (1968), using a scale which they had designed, showed that deference to authority, dominance, nurturance, as well as intellectual aptitude were correlated with achievement levels. In addition, an inadequate self-concept may be related to emotional difficulties that lead to under-achievement. Using a Draw-A-Person test, Krall (1970) examined the self-concept of 75 freshmen students and compared those who completed the diploma program with those who did not, controlling for scholastic aptitude. Unsuccessful students produced more part body figures and drew the opposite sex figures first significantly more often than successful students.

The personality characteristics of nurses working in the various specialty areas appear to be different.

Using the EPPS, George and Stephens (1968) compared the personality traits of seventy-five public health nurses

(PHN's) to those of 196 psychiatric nurses. They found significant differences existed in four scales: PHN's scored higher in the need for Autonomy and Abasement whereas the psychiatric nurses placed greater emphasis on Deference and Aggression. Navran and Stauffacher (1968) also compared the EPPS scores as determined in nursing school to those obtained five years after graduation. They found no difference between the EPPS scores and the nursing areas (medical, surgical, psychiatric, administration, research). However, scores in three needs (Achievement, Order, and Intraception) were different among those who preferred the various nursing areas. Nurses who preferred psychiatric nursing initially scored the lowest on Achievement and Order and were the highest group on Intraception. Before actual experience in nursing then, the nurses had a relatively low need for personal success, a higher tolerance for ambiguity in formal organization and were much more aware of the emotions and feelings of others. After five years of working experience, the women preferring psychiatric nursing were clearly the high group with respect to Intraception and, among the nurses wishing to remain active, were the lowest on Exhibition. Those preferring the areas of administration, teaching, or research were the highest scorers on both the need Exhibition and Dominance.

Personality factors may also be involved in the nurse's preferences to work in intensive care settings. Gentry et al. (1972) speculated that while all nurses are faced with the physical needs of their patients as well as heavy demands for emotional support, the nurse working in the intensive care setting is subjected to even greater psychological stress. Various investigators have identified many sources of stress, including an overwhelming workload, limited work-space, extra- and intra-staff conflicts, lack of support from and poor communication with physicians and administration, emotional support demanded by patients! families, and those problems directly related to intensive nursing care of critically-ill patients: high amount of scientific knowledge and technical expertise with equipment, the frequency of crucial decision-making, and the degree of responsibility often undertaken (Gentry et al. 1972; Koumans 1965; Hay and Oken 1972; Michaels 1971; Cassem and Hackett 1972; and Bilodeau 1972).

The ICU Setting

Since all patients in the ICU are critically ill, a source of psychological stress to the nurse is always present. Indeed, "the atmosphere is not unlike that of the tension-charged strategic war bunker" (Hay and Oken 1972). There is the workload which, even in periods of

calm, is formidable. Many tasks, normally performed by nurse's aides elsewhere, i.e., changing a bed, bathing, become the nurses' responsibility because they require the manipulation of complex equipment. The nurses! hasty, repetitive activities are likened to a hamster on a treadmill; as soon as the required tasks for one patient are finished they must be begun or repeated for another in a constant race against the clock. Furthermore, every step must be charted (Hay and Oken 1972). The often minimal staffing may only be barely adequate to meet top priority patient needs and to respond to emergency resuscitation efforts. While nurses from the ICU may sometimes be required by hospital policy to respond to emergencies on other non-ICU floors, they in turn, in times of need must rely upon themselves or else are supplied with untrained or less competent personnel (Bilodeau 1972). Thus, Hay and Oken (1972) view the situation for the ICU nurse as a paradox: "Nowhere more than in an ICU is a good nurse expected to make observations, to interpret subtle changes and use judgment to take appropriate action. But often the ICU nurse is so unremittingly involved in collecting and charting information that she has little time to interpret it.

Much of the responsibility for the patient in the ICU rests with the nurse (Vreeland and Ellis 1969). While the physician has the prerogative to come and go, the nurse is left to deal with emergencies as they occur and make immediate and accurate decisions. The increased freedom of action and responsibility afforded her position in making critical judgments normally left to the physician may be an added source of anxiety (Michaels 1971). The quantity and variety of complex technical equipment and tasks also poses demands on her scientific knowledge and expertise (Hay and Oken 1972).

However, this added responsibility also leads to conflicts between the physician and the nurse who is probably more familiar with the patient. In addition, gravely ill ICU patients may stimulate frustration, self-doubt, or guilt in their physicians who may deal with these feelings by being over-critical, impatient, demanding, or unavailable for updating orders, for vital decision-making or at the time of a patient's death. He may, likewise, react with overzealous, unnecessary heroic gestures to save someone beyond recovery by ordering special treatments, frequent monitoring, or insist upon fruitless emergency resuscitation. Thus, the physician is unavailable to the nurse as a source of advice and.

ideally, reassurance, but instead, may add to her frustration (Hay and Oken 1972).

In addition, the ICU for practical purposes is a community separate from the hospital (Koumans 1965). Within this community there is a considerable amount of space-consuming equipment and an increased amount of traffic. Hence, the amount of work space is greatly limited. The compactness of the ICU may be advantageous for observation and easy mobility from one patient to another (Vreeland 1969). However, windows may be lacking, and cubicles or rooms are too small and often afford too little privacy. There may be no lounge facilities to allow nurses time away from the unit, and the unit may be constructed in such a way that the nurse is always in sight and within hearing distance of the patient (Bilodeau 1972). Thus, physical aspects of the critical care unit have been identified as a source of stress for the nurse.

Group cohesiveness can be a logical solution to the multivariate stresses of the ICU as well as provide essential emotional support. Being a member of a special group can provide much pride and strength (Hay and Oken 1972). Indeed, in many hospitals, frequently ICU nurses are a distinctive group defined by their scrub gowns or special insignia. Nursing in an intensive care setting

does have its recognized advantages: high morale can be obtained by saving lives and dealing with medically interesting or challenging patients. Nurses in these units tend to see themselves as an elite group. afforded an increased closeness with the medical staff who readily teach them new procedures (Michaels 1971). For these reasons, they may be regarded by other nurses with much envy or by a retaliatory disregard, hence isolating the group further. In turn. ICU nurses may view personnel on other units as less competent, often blaming them when former patients have a set-back and are returned to the ICU, or for lack of follow-up on treatments begun in the ICU (Bilodeau 1972). However. conflict between groups within the ICU also arises. In the tense setting of the ICU, minor misunderstandings often become magnified and several opposing sub-groups would form (Bilodeau 1972). As stated by Bilodeau (1972), "With many strong-willed, independent, aggressive women working on the same unit...conflicts develop." Competition for mastering technical skills is high, and equally strong is a desire for respect from co-workers. The nurse who asks too many questions or who admits fears may be viewed as less competent. And those who view themselves as more skilled berate others but do nothing to increase the latter's level of expertise (Bilodeau 1972).

Poor communication between nursing administration and the ICU nurses may also exist. The nurses may feel they do not get much support from an administration who fails to appreciate the realities of the ICU situation, who are technically less skilled anyway, and who are the least competent as judges of their needs (Hay and Oken 1972; Bilodeau 1972). Hence, the nurses may not ask for advice or ignore the advice they get. Limits placed on the nurses' decision-making are often viewed with great resentment (Bilodeau 1972). On the other hand, the administrators who are given the authority to direct the nurses may not have ever worked in an ICU and do not fully understand the needs of the nurses or patients (Cassem and Hackett 1972). They may not provide adequate directives for daily and emergency functioning and may not always be available for consultation when needed (Robinson 1972). Instead, they criticize the nurses for failure of seeing the needs of the hospital as a whole. and may regard the complaints of dissatisfied nurses as a sign of emotional unfitness or immaturity, not as a basis for changes in policy (Hay and Oken 1972). nurse's position has been viewed as self-contradicting: while often expressing a desire for more support and more skilled supervision, she is simultaneously demanding more

independence (Cassem and Hackett 1972). Some of the anger expressed by nurses towards their superiors has been viewed as scapegoating. Supervisors, administrators, and often head nurses, are available targets for hostility generated by the stresses and frustrations present in the ICU (Cassem and Hackett 1975).

Due to the critical nature of the illness, the family is constantly present. Their presence can act as a source of stress especially if there is little good news to share. In their persistent inquiries about the patient's condition and prognosis, they are turning to the nursing personnel for reassurance, information, and support. Though the nurse may be aware and may even express a responsibility towards supplying this need, she may be unable to, through the lack of time, or have the emotional ability to fully meet them. Families may sometimes cope with their feelings in ways that threaten or overwhelm the nurse, or through ignorance or anxiety interfere with the patient's care. When emergency situations or death heighten the family's need for support, nursing personnel may feel drained and the least able to console them (Bilodeau 1973). On occasion, distraught relatives, feeling rebuffed, begin to scrutinize and criticize the patient's care. The relatives' hovering

presence soon becomes a nuisance and a source of stress for the nurses (Hay and Oken 1972).

Finally, the ICU patient is one who needs close, constant care. In addition, he is totally dependent upon nurses for all of his needs; often, he is unable to communicate his needs or comprehend nursing intervention. Much of the care given involves heavy lifting or turning of the patient (Bilodeau 1973). Additionally, his demands for emotional support may be high, and the nurse, although aware of them, may feel inadequate, uncomfortable, or too pressured by other demands requiring her more immediate attention to meet them adequately. When a patient does not require intensive intervention, he requires intensive. detailed observation, because crises in his condition can occur instantly. Due to the hectic pace and rapid patient turnover, there is little time to establish rapport (Bilodeau 1972). Furthermore, the nurse in constant close patient contact and, often, without short periods of time allowed away from the unit, has a tendency to lose her objectivity and sympathetic attitude toward the patient (Vreeland and Ellis 1969).

Thus, there appears to be a general consensus among the authors reviewed that intensive care nurses are subjected to higher stress levels than floor nurses.

Sources of this stress range from the physical and psychological responsibilities undertaken to the demands placed upon her emotional stamina to provide support to the patient's family as well as to the patient himself.

The ICU Nurse

Mistakes, although greatly feared, are inevitable. The ICU nurse lives chronically under a sense of anxiety. Although with increasing experience a more realistic perspective can often times be achieved, a degree of residual uncertainty may always remain. At times of stress, anxiety can exceed threshold levels, then efficiency and decision-making capacities decline allowing for additional mistakes (Hay and Oken 1972).

When patient death does occur, which is more frequently here than on non-ICU floors, mixed feelings are often generated. If the prognosis was poor from the start, there is relief; if the patient was young or had good life potentials, the nurse is left with a sense of failure or devastation (Michaels 1971). She may suffer from feelings of guilt, lowered self-esteem, personal failure or impotency (Gentry et al. 1972). Cassem and Hackett (1972) view the ICU nurse as one who demands a great deal from herself and deeply realizes that what she does could make a difference between life and death.

Hence, when a patient is critically ill she feels anxious, and when he dies she may feel despair and feel inadequate (Cassem and Hackett 1972). Hay and Oken (1972) explain the nurse's reaction to the death of young patients as one involving identification of the patient with friends and spouses, or with the self, hence, stimulating anxiety about one's own vulnerability. Older patients may become transference objects of parents or grandparental figures. Further, the intimacy and degree of personal contact. involving some of the most private functions of human life, promotes an attachment which is greatly enhanced if the patient is conscious and verbal, since then he possesses all the qualities of being human. Frequent deaths of these patients expose the ICU nurse to varying degrees of repetitive object-loss, leading to depression and grief (Gentry et al. 1972). Indeed, the intensity of affect inherent in most of the interpersonal transactions has been singled out as a major crisisprovoking factor of the ICU (Gentry et al. 1972). feelings themselves may cause undue anxiety and guilt for the nurse who believes they make her less than an ideal nurse for the ICU. That is, she should instead put herself and her own needs aside and always think of the patient first (Gentry et al. 1972). Authors such as Ryan

(1969) may well perpetuate these feelings of guilt:

The most important characteristic an intensive care nurse can possess is a positive attitude. Without it she cannot render an acceptable performance...She must have a clear mind, be available at all times for emergencies, be able to foresee emergencies, take over with complete command, and be able to control her emotional response at all times...She should display empathy, show warmth and tenderness...

Thus, requests are made for her to be supportive, understanding, and caring. But as Cassem and Hackett (1972) realize, "She is taken for granted. It is too easy to forget her needs."

Indeed, the nurse is so often encouraged to become involved but so little consideration has been given to help her to cope with her own vulnerability (Holsclaw 1965). This may be a factor which interferes with her ability to provide the best quality of patient care. Michaels (1971) writes, "Nurses in ICU's endure such stressful situations that intrapsychic conflicts and...anxiety are the result; therefore, the nurses... are so in need of support themselves they...are unable to give support to others."

Broadbent (1971) points to another consequence of repeated exposure to high levels of stress:
habituation, in which there is a decrease in responsiveness.
Holsclaw (1965) asks whether the effect upon the nurse is

lessened or are the nurse's defenses simply stronger and more organized. She suggests that there may be a saturation point beyond which, without further help, the nurse becomes so vulnerable that she must withdraw in order to defend herself against the emotional impact of giving care to critically ill people. To do so she need not physically leave the situation. Instead, she can avoid, or at least attenuate, the meaning and emotional impact of her work as often evidenced by hysterical giggling and joking, particularly after a crisis period such as a cardiac arrest (Hay and Oken 1972). She may relate less to her patients and more to the machines. The patient himself may also serve as an escape mechanism. By focusing upon his body, an objectifying distance can be provided for his caretakers when affects become uncomfortable (Koumans 1965). In a competitive atmosphere such as is often the case for ICU's, the outward expression of anxiety or strain may be unacceptable (Michaels 1971). Hence, she may assume a no-nonsense, business-like manner, or become preoccupied with housekeeping, clerical, or managerial duties (i.e., setting up rules and procedures). Other behavioral signs of the effect of stress include dropouts, a high incidence of absenteeism due to minor illnesses and vague somatic complaints (e.g., headache, upset stomach, and fatigue), hyperactivity and

restlessness, frequent requests for transfers to other work sites, and the displacement of feelings through intra-staff conflicts (Gentry et al. 1972; Bilodeau 1972).

Hence, nurses cope with the stress of the ICU in a variety of ways. Some of these ways may be less than appropriate in that they do not enhance patient care or foster job satisfaction (Bilodeau 1972). Furthermore, Holsclaw (1965) believes that the effects of the ICU can be totally destructive: "The anxiety engendered in interpersonal relations must be contained at a mild or moderate level, for if it rises suddenly personality disorganization will occur and pathological reintegration may result." Hay and Oken (1972) found the nurse's selfesteem to be very likely threatened. Friedman (1972) states that indeed, the effects may be especially potent for these nurses in that, as a self-selected group, they may have a generally higher expectation of themselves or sensitivities due to the area they have chosen to work.

Other studies also suggest the possibility that ICU personnel inherently differ from those who work on the floors. In a study of the psychological vulnerabilities of physicians, Vaillant et al. (1972) found that those physicians involved in direct patient care were more likely than their socioeconomically matched control subjects to

have relatively poor marriages, to use drugs and alcohol heavily, and to obtain psychotherapy. However, it was found that only those physicians with the least stable life adjustments (i.e., childhood and adolescent) appeared vulnerable to these occupational stresses. investigators offered the explanation that some physicians may elect to assume direct care of patients to give others the care that they did not receive in their own childhoods. Hence, the same may be true of nurses who choose to work in ICU's. For them, other assignments might be less gratifying or even more stressful (Hay and Oken 1972). On the other hand, Vaillant et al. (1972) interpret their results to possible mean that direct patient care is a stress factor in itself, and may have a greater impact on ICU personnel, with their particular personality constitutions and experiences, than on those in other nursing areas.

The possibility that differences in personality profiles of ICU and non-ICU nurses do exist has been examined in only three studies. Gentry et al.(1972) administered a battery of psychologic tests to a total of thirty-four nurses. The tests used were the Tennessee Self-Concept Scale, Zung Self-Rating Depression Scale, Buss-Durkee Hostility Inventory, and the Minnesota

Multiphasic Inventory. There was a significant difference in self-rated depression and in hostility between the nurses in the acute-care unit (ACU) and coronary care unit (CCU) and those in three general medical-surgical There was also a tendency (p<0.05) for the ICU nurses to report the most anxiety. There were no statistical differences between groups in self-concept. in the clinical scales of the MMPI, and in guilt scores obtained in the Buss-Durkee Hostility inventory. interviewing sixty nurses working in the CCU and non-ICU floors, Kellberg (1972) found that ICU nurses had higher aspiration levels in terms of an increased desire for responsibility and challenge, and that they preferred to work in high stress areas. Both the CCU and floor nurses shared the same attitudes and values with respect to patient care. However, although the ICU nurses denied a greater need for recognition, they felt that others viewed them as having greater skill, knowledge, and expertise (Kellberg 1972). Finally, in an unpublished Master's level research, Weeks (1974) used a questionnaire distributed to fifty-four surgical ICU nurses and thirtyeight surgical floor nurses. The ICU nurses consistently had significantly higher expectations of their nursing expertise than did floor nurses. They also perceived

more competition and judged themselves as less adept in providing psychological support than did floor nurses.

Thus, from these observations, some insights have been offered of ICU nurses' unique situation and the nature of their experience. There are suggestions that ICU nurses are different from floor nurses. However, the nature of these differences has not been fully elucidated. The two latter studies utilized a question-naire whose validity and reliability has not been determined. Gentry et al. (1972) did employ numerous standard psychologic tests, but their sample was small and no effort was made to identify sub-populations which may have detectable personality differences.

As previously stated, this paper will assess the personality characteristics of ICU and non-ICU nurses. The methodology and instruments used will be discussed in the following chapter.

Summary

This chapter was concerned with the relationship of the nurse's personality to her vocational choice.

Initially, the personality of the student nurse, before she was admitted to nursing school and during her nursing education, was reviewed. In addition, the personality characteristics of nurses working in the various specialty

areas were examined. Then the ICU's unique setting was discussed in terms of its particular sources of stress upon the nurse. The effects of the stresses upon the ICU nurse and her particular situation were explored. Finally, studies examining the differences in personality profiles between ICU and non-ICU nurses were presented and their inadequacies were discussed.

CHAPTER III

PROCEDURE FOR COLLECTION AND TREATMENT OF DATA

Introduction

This study was non-experimental, comparative, and correlational in design. Its purpose was to determine if there are significant differences in the personality characteristics of nurses who work in the ICU's and non-ICU's.

Setting

The setting for this study was an 825 bed, nonprofit, private, teaching, general hospital located in a
large medical center in the South. This hospital has five
ICU's (CCU, NICU, PICU, CVRR, and MSICU) and several
medical-surgical floors from which the sample population
was obtained.

Population

The population of this study was composed of sixty nurses who were working during the period of time this study was conducted. Thirty-eight nurses working in the ICU's were selected initially and twenty-two nurses who were working on the medical-surgical floors were used

if they met the criteria as stated under definition of nurse, as used in this study.

Tool

The Adjective Check List developed by Gough was used to quantify the nurses' personality profiles (Gough 1960). This tool consists of a standardized 300 - word list of adjectives from "Absent-minded" to "zany". The subjects responded by marking on the answer sheet those adjectives that are self-descriptive (appendix A. NCS. Answer Sheet for the Adjective Check List). The subjects were scored for twenty-four indices and scales which are the following: Number of adjectives checked, Defensiveness, Number of favorable adjectives checked, Number of unfavorable adjectives checked, Self-confidence, Selfcontrol, Lability, Personal adjustment, Achievement, Dominance, Endurance, Order, Intraception, Nurturance, Affiliation, Heterosexuality, Exhibition, Autonomy, Aggression, Change, Succorance, Abasement, Deference, and Counseling readiness. The definition and description of each indice and scale are listed in appendix B. Since scoring is complicated, requiring different norm tables depending on the number of adjectives checked, the responses were computer-scored.*

^{*} Computer scoring was done by Interpretative Scoring Systems, 4401 West 76th Street, Minneapolis, Minnesota, 55435.

The ACL was chosen for its simplicity of administration requiring approximately fifteen to twenty minutes for completion. The check list approach offers words that are commonly used for description in a standardized format (appendix A). Furthermore, the ACL is non-technical and requires no special knowledge.

The second tool used in this study was the Personal Information Questionnaire (PIQ, appendix D). The purpose of this tool was to gain additional information about the sample population. The content of the PIQ consisted of such items as the subject's age, sex, current work unit, duration of current ICU or non-ICU experience, previous nursing experience and duration, current job status, highest level of education, whether permanently assigned or floating between units, degree of job satisfaction, and reasons for satisfaction or dissatisfaction.

Collection of Data

Prior to data collection, approval was sought and received from the Human Research Review Committee (appendix E, Letter of Approval). Then written permission was obtained from the agency used in this study. However, because the agency chose not to be identified the agency permission form is not included in this paper.

This researcher met with the subjects in a group at the scheduled time. Following a brief oral explanation (appendix F) of the study, consent forms (appendix G) were completed by each subject. Identification numbers were randomly issued to the nurses, who were each instructed to indicate it on both tools used. Nurses in the sample population were then requested to complete the PIQ.

Following completion of the PIQ, instructions (given on the NCS Answer Sheet) for the ACL were read aloud. When questions arose they were answered in a courteous, non-committal manner so as not to influence the nurses' responses. The nurses were then instructed to respond to each item on the ACL. The two questionnaires were then collected.

Procedure for Analysis of Data

The purpose of this study was to determine if differences exist in the personality characteristics of nurses who work in ICU's and nurses who work in non-ICU's. Raw scores from the ACL were first standardized against one of eight norm populations based on the sex and total number of responses and then plotted by computer on the Profile Sheet for the ACL (appendix C) for each nurse. The results were used in the following computations. The nurses were divided into two groups: Group I those nurses who were working in the ICU and Group II those who were working in the non-ICU areas. Each group was analyzed for the means

and standard deviations for each of the twenty-four indices and scales of the ACL. The Student's t-test was utilized to refute the null hypothesis that there is no difference between the two population means in each of the indices. The basic computational formula was the following:

$$\bar{x}_1 - \bar{x}_2$$

$$t_{i} = \sqrt{\frac{(SD_{1})^{2} (N_{1} - 1) + (SD_{2})^{2} (N_{2} - 1)}{(N_{1} + N_{2}) - 2}} \times \frac{1}{(N_{1} + \frac{1}{N_{2}})}$$

where SD_1 and SD_2 = standard deviation of group I and II, \bar{X}_1 and \bar{X}_2 = mean of group I and II, N_1 and N_2 = number in group I and II, respectively, and i = each indice of the ACL.

Group I was then divided into its five specific ICU areas and separate means and standard deviations were calculated for each ACL index. These sub-groups were compared with each other and with group II using the Student's t-test.

Differences between the means within each group were further analyzed by the F test to determine whether the sub-groups should be pooled:

The PIQ was then utilized to examine the factors which may have contributed to any differences between the groups of ICU and non-ICU nurses' personality profiles, that is, the presence of any confounding variable(s). The basic statistical tool was the chi-square (x^2) test with Yates' correction:

$$x^2 = \sum \frac{(10 - E| -.5)^2}{E}$$

where, 0 = observed frequency of ICU nurses' scores,

E = expected frequency obtained by examining the non-ICU
nurses' scores, and .5 = the Yates' correction.

Summary

This chapter described a non-experimental study of nurses who were working in the ICU and non-ICU areas to determine if their personality profiles differed significantly. The tool used to collect the data was the ACL, a standardized, psychometric measure of personality. Information pertaining to the nurses' past nursing experiences and present nursing situations were obtained using a questionnaire. The Student's t-test, F test, and chi-square were used to analyze the data obtained.

CHAPTER IV

ANALYSIS AND TREATMENT OF DATA

Introduction

A comparative research study was conducted for the purpose of comparing and determining if differences exist in the personality profiles of nurses working in intensive and non-intensive care units. The ACL and PIQ were used to collect the data. This chapter will discuss the analysis and interpretation of this data.

Description of the Sample

The sample population consisted of a total of sixty nurses of whom thirty-eight were from ICU's. The ICU nurses were composed of nineteen from cardiovascular recovery room (CVRR), four from medical-surgical ICU (MSICU), five from neuro ICU (NICU), five from coronary care unit (CCU), and five from pulmonary ICU (PICU). Their mean age was 26.2 years with a range from twenty-two to fifty-two years. In this group, there were thirty-seven females and one male. Of the twenty-two non-ICU nurses, whose mean age was 26.5 years with a range of twenty-two to forty-eight years, there were twenty-one females and one male. This data is summarized in table 1. It is evident that females overwhelmingly

predominate both ICU and non-ICU nurses, representing 97 percent and 95 percent, respectively, of each group. The mean age of this population was younger than those in Kellberg's (1972) study, which was thirty-three years and in Week's (1974) study, which were twenty-eight years for ICU and thirty years for non-ICU nurses. There was no statistically significant difference in the ages among the ICU and non-ICU groups.

TABLE 1
SEX AND AGE IN YEARS OF SAMPLE POPULATION

| | CVRR | | J Nurse NICU | CCU | PICU | Total | Per- cent | Non-ICU Nurses | Per- cent | Total | Per- cent | |
|---------------------|------|------|-----------------|------|------|-------|--------------|-------------------|--------------|-------|--------------|----|
| Number | 19 | 4 | 5 | 5 | 5 | 38 | 63 | 22 | 37 | 60 | 100 | |
| Female | 19 | 4 | . 4 | 5 | 5 . | 37 | 62 | 21 | 36 | 58 | 97 | |
| Male | 0 | 0 | 1 | 0 | 0 | 1 | 1. | 1 | 1 | 2 | 3 | 42 |
| Mean Age (years) | 25.2 | 24.5 | 25.4 | 27.6 | 31.0 | 26.2 | | 26.5 | | | | |

There were eleven head nurses and forty-nine staff nurses in the population. The specific work location of the nurses according to present position is shown in table 2.

TABLE 2
PRESENT POSITION OF SAMPLE POPULATION

| | CVRR | MSICU | ICU NICU | CCU | PICU | Total | | Non- ICU | | Total | Per- cent |
|--------------|------|-------|-------------|-----|------|-------|----|-------------|----|-------|--------------|
| Head Nurses | 1 | 1 | 1 | 1 | . 0 | 4 | 6 | 7 | 12 | 11 | 18 |
| Staff Nurses | 18 | 3 | 4 | 4 | 5 | 34 | 57 | 15 | 25 | 49 | 82 |
| Total | | | | | | 38 | 63 | 22 | 37 | 60 | 100 |
| | | | | | | | | | | | |

There is a correlation with years working and age. This is shown in table 3. Of nurses 22 to 24 years of age, 85 percent had two or less years of nursing employment. Of nurses 25 to 29 years, 77 percent have worked from 3 to 8 years. However, of the nurses thirty years or over, four worked 1 to 2 years and three worked 12 to 30 years.

TABLE 3

AGE, PRESENT LOCATION, AND NUMBER YEARS

EMPLOYMENT OF SAMPLE POPULATION^a

| Nurses' Age (Years) | Present Location | 1. | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 8+ | Total | Percent |
|------------------------|---------------------|-----|---|-----|---|---|---|------------------|---|----------------|-------|---------|
| 22 - 24 | Non-ICU | 6 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 17 |
| | ICU | .11 | 3 | 1 | 1 | 0 | 0 | ² 2 O | 0 | 0 7 | 16 | 27 |
| 25 - 29 | Non-ICU | 3 | 0 | 2 | 2 | 1 | 1 | 0 | 0 | 0 | 9 | 15 |
| | ICU | 2 | 1 | 5 | 0 | 4 | 0 | 2 | 3 | 0 | 17 | 29 |
| ≥30 | Non-ICU | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | l ^b | 3 | 5 |
| | ICU | 1 | 1 | . 0 | 0 | 0 | 0 | 0 | 0 | 2 ^c | 4 | 7 |
| Total | er. | | | | | | | | | | 59 | 100 |

^aOne nurse who gave no response to age was eliminated.

b Worked 27 years.

^cOne worked 12 years, one 30 years.

In examining the previous nursing experiences. numerous inconsistencies were evident. In many cases the sum of previous years of experience plus the length of their present position held did not equal number of years actively employed since graduation. In some cases, the position described indicated that their experience was obtained while in nursing school. In other cases, it was possible to explain the difference in years. In addition. some included the length of present position. Thus, one nurse stated that she worked three years since graduation with length of present position held being six weeks, but gave her nursing experience as one year ICU staff nursing. three years non-ICU staff nursing, and three months other (i.e., ambulatory) staff nursing! Finally, there are those nurses who have worked all of their nursing career thus far in their present position. They would have lowered the mean nursing experiences given in table 4. Thus, all of the factors must be considered in examining table 4. These figures excluded any student years which the nurse gave as her nursing experience.

| Nurses' Age (Years) | | CVRR | MSICU | NICU | ccu | | ent Locati Total ICU | on NON-ICU |
|---------------------------|---|------|-------|-------|--|------------|----------------------------|---------------|
| 00.04 | Mean length present position held (years) | 0.5 | 1.3 | 1.1 | Total NON-ICU - 0.5 0.8 0.6 - 0 0.3 0.4 0.7 2.6 0.2 1.1 0.7 | | | |
| 22 - 24 | Nursing experience: in ICU 0.4 on floor 0.2 | 0.3 | 0.1 | * *** | 0 | | | |
| 25–29 | Mean length present position held (years) | 1.2 | 0.6 | 0.6 | 2.6 | 0.2 | 1.1 | 0.7 |
| 2)-29 | Nursing experience: in ICU on floor | 1.7 | 0 | 1.0 | 2.5 | 3.3 0.2 | 2.0 | 0.6 |

TABLE 4 - Continued

| Nurses' Age (Years) | | CVRR | MSICU | NICU | Present I Tota CCU PICU ICU | | |
|---------------------------|---|------|------------|--------------|-----------------------------------|------------|--|
| >70 | Mean length present position held (years) | - | | | 1.4 0.2 4.0 | 1.0 | |
| ≥30 | Nursing experience: in ICU on floor | - | 603 546 | - , , | 3.5 16 6.6 1.0 14 4.2 | 1.7 4.5 | |

The educational preparation of the population can be seen in table 5. The majority of both groups have a baccalaureate degree in contrast to Kellberg's (1972) population, in which the majority possessed a diploma. By chi-square testing, there was no difference in the education of ICU nurses and that of non-ICU nurses.

TABLE 5

EDUCATION PREPARATION OF SAMPLE POPULATION^a

| a a | | | | ICU | | | | Non- ICU | Per- cent | Total | Per- |
|---------|------|-------|------|-----|------|-------|---------|-------------|--------------|-------|------|
| | CVRR | MSICU | NICU | CCU | PICU | Total | Percent | | · | | 1 , |
| Diploma | 4 | 1 | 0 | 2 | 0 | 7 | 12 | 2 | 3 | 9 | 15 |
| A.D. | 1 | 0 | 2 | 1 | 1 | 5 | 9 | 6 , , | 10 | 11 | 19 |
| B.S. | 14 | 3 | 3 | 2 | 3 | 25 | 43 | 13 | 23 | 38 | 66 |
| Total | | | * | | | 37 | 64 | 21 | 36 | 58 | 100 |
| i i | | F | | | | | | | | 1 | |

Two nurses who were eliminated had designated "R.N." as their highest degree. One was from the PICU and the other from the floor.

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In examining the preference of employment that the population has, it was found that 97 percent of those who preferred to work in ICU's are actually employed there and 100 percent of those who would like to work on the floor are, likewise, working there.

The satisfaction that the population has with their present position is shown in table 6. There is no difference, by chi-square testing (x = 4.16), between the ICU and non-ICU groups, confirming the previous studies of Gentry et al (1972) and of Kellberg (1972).

TABLE 6
SATISFACTION WITH PRESENT POSITION OF SAMPLE POPULATION^a

| Degree Satis- faction | CVRR | MSICU | NICU | ccu | PICU | Total | Percent | Non- ICU | Per- cent | Total | Per- cent |
|-----------------------------|------|-------|------|-----|------|-------|---------|-------------|--------------|-------|--------------|
| D.D. | 1 | 0 | 0 | 1 | 1, | 3 | 5 | 0 | 0 | 3 | 5 |
| S.D. | 2 | 1 | 0 | 1 | 0 | 4 | 7 | 6 | 10 | 10 | 17 |
| Ind. | 0 | 0 | 0 | ı | 0 | 1 | 2 | 1 | 2 | 2 | 4 |
| Sat. | 11 . | 5 | 1 | 2 | 3 | 19 | 33 | 11 | 19 | 30 | 52 |
| V.S. | 4 | 0 | 3 | 0 | 1 | 9 | 16 | 4 | 6 | 13 | 22 |
| Total | | | | | | 36 | 63 | 22 | 37 | 58 | 100 |

Two nurses who were eliminated included one nurse who had no response to this question and one nurse who marked both "somewhat dissatisfied and very satisfied."

Abbreviations mean Definitely Dissatisfied, Somewhat Dissatisfied, Indifferent, Satisfied, and Very Satisfied, respectively.

Presentation and Analysis of Data

As a first step, the ICU and non-ICU groups of nurses were compared in the mean scores of each scale of the ACL using the Student's t-test. There was no significance at the 0.05 level. (See appendix H, table 7). Thus, the null hypothesis that there is no difference between the means of the two populations in each of the indices was accepted.

To determine whether there was any significant difference among the mean scores in the subgroups in the ICU sample, i.e., CVRR, NICU, MSICU, CCU, and PICU, as well as the non-ICU sample, the F-test was utilized. There were two scales of the ACL which showed a statistically significant variation in scores among the subgroups and non-ICU population (tables 7 and 8). These were Defensiveness (F = 3.61, p40.05), and Autonomy (F = 3.15, p<0.05). PICU nurses possessed the highest scores on the former scale followed by nurses in the CCU, MSICU, CVRR, and NICU, with non-ICU nurses scoring the lowest. On the Autonomy scale, the NICU nurses scored the lowest with the highest mean score by the PICU nurses and the remaining groups in between.

The influence of age can be seen in table 9 where the nurses were divided into three groups: group 1 those 22 to 24 years of age, group 2 those 25 to 29 years of age, and group 3 those thirty years of age and over. There were

26, 27, and 7 nurses in each group, respectively; and the mean age of each group was 23.2 ± 0.8 years, 26.6 ± 1.5 years, and 39.4 ± 8.8 years, respectively.

It was noted that approximately 89 percent of nurses was less than thirty years old; these nurses were then divided into two groups according to the median. The nurses older than twenty-nine years were considered as a separate group because of the wide range in their ages, i.e., 30 to 52 years.

Eleven scales showed significant differences among the three age groups. Specifically, when compared with the oldest nurses, the younger nurses (ages 22 to 29 years) scored lower in Defensiveness (t = 2.25, p4.05). confidence (t = 2.26, $p \le 05$), Dominance (t = 2.21, $p \le 05$), and Endurance (t = 2.45, p4.05). The 22 to 24 year olds also scored significantly lower than the 25 to 29 year olds in Deference (t = 2.65, p4.05), Self-control (t = 3.17, p < .001), and Endurance (t = 2.65, p < .05), and higher in Autonomy (t = 2.05, p<.05), Aggression (t = 2.02, p<.05), and Change (t = 2.35, p<.05). In addition, the oldest group scored significantly lower than the 25 to 29 year olds in Abasement (t = 2.37, p<.05), but higher in Self-confidence (t = 2.2, p<.05), Dominance (t = 2.41, p<.05), and Endurance (t = 2.07, p<.05). Thus, of these scales, the ones in which the scores appeared to be influenced by each successive age

group in a linear manner were Defensiveness and Endurance scales. Here the youngest nurses had the lowest mean scores and the oldest nurses the highest mean scores. The scale for Number of unfavorable adjectives checked showed the youngest nurses having the highest mean score and the oldest nurses the lowest mean score.

In controlling for the effects of age, each group was then examined for any difference in scores between those nurses from the non-ICU's and those from the ICU's. There was no significant difference in the scores among the ICU and non-ICU nurses among the 22 to 24 year olds (table 10). The ICU nurses were then divided into those working in the CVRR and those in other critical care settings. population of the other specific subgroups (i.e., NICU, PICU. CCU. MSICU) made grouping these together in a non-CVRR group necessary. The lack of any significant difference for the youngest nurses remained (table 10). In the 25 to 29 years group (table 11), the non-ICU nurses were found to score lower than the ICU nurses in Number of adjectives checked (t = 2.18, p4.05). For those nurses ages thirty and above (table 12) there were numerous differences between ICU and non-ICU nurses. The former scored higher in the Number of adjectives checked (t = 3.06, p<.05), but the non-ICU nurses scored higher in Self-confidence (t = 2.94,

p < .05), Dominance (t = 2.90, p < .05), Heterosexuality (t = 2.87, p < .05), and Change (t = 2.77, p < .05).

In this study, there was a clear influence of age on the nurses' scores in eleven of the twenty-four scales. The youngest nurses appeared to be more energetic, spontaneous, competitive, and independent; they like attention, like to supervise and direct others, and to express their will. They also tend to be erratic and impatient, intolerant of prolonged effort or attention, and apt to change in an abrupt manner taking pleasure in variety, disorder, and complexity. They may strike others as headstrong, arrogant, careless, conceited, and cynical.

Similar findings concerning the young nurses of today were reported by Adams and Klein (1972) and Stein (1969) using the EPPS. Thus, assessment of personality of nurses needs to consider age as an important factor.

It appeared that differences between ICU and non-ICU nurses became more pronounced as their ages were increased. No significant difference was found in the 22 to 24 year age group (table 10). Within the 25 to 29 year age group, only one scale was significantly different (table 11). It indicated that the ICU nurse tended to be more emotional, adventurous, wholesome, conservative, enthusiastic, frank, and helpful than the non-ICU nurse. The oldest ICU nurse can also be described as above (table

12). In addition, she scored higher than all others in the two scales reflecting Self-confidence and Dominance. Based on the scores, she is more forceful, strong-willed and confident of her ability. She is also more spontaneous and takes pleasure in change and variety because she has this self-confidence. Finally, she also appears to be more interested in the opposite sex.

It is difficult to explain why increase in age would lead to an increase in personality differences or changes between ICU and non-ICU nurses. One reason may be the heterogeneity of the oldest group. It is difficult to relate the length of employment to maturational change since four nurses worked 1 to 2 years and three worked 12 to 30 years.

Due to the confusing nature of the responses to questions on length of position held and previous nursing experience, an analysis was performed examining the scores of nurses divided into three groups: those with experience in both ICU and non-ICU areas, those with experience in ICU's only, and those with only non-ICU experience (table 13). Twenty-four nurses were included in the first group, twenty in the second group, and fourteen in the third group. Two were eliminated due to ambiguity as to their response on the PIQ related to their experience. Of those in the first group, seventeen were working in the ICU's and seven

were working in the non-ICU's at the time this study was conducted. In comparing those who have worked only in the ICU and only in the non-ICU, one scale was significantly different. ICU nurses scored higher in Exhibition (t = 3.37, p<.01). In fact, those who have worked in both areas also scored significantly higher (t = 2.79, p<.01), but the difference was significant for only those who were currently working on the floors (t = 3.61, p<.01). There was no other difference between those who have worked solely in the non-ICU and those who have worked in both areas. However, between the nurses with experience in both areas and those who have worked solely in the ICU, numerous significant differences were found (table 13). Specifically, the ICU nurses scored lower in Defensiveness (t = 2.23, p<.05), Personal adjustment (t = 2.36, p<.05), Intraception (t = 2.11, p < .05), and Nurturance (t = 2.39, p4.05) and higher in Number of unfavorable adjectives checked (t = 2.26, p<.05), Aggression (t = 3.01, p<.01). and Exhibitionism (t = 2.79, p<.01).

To more closely examine the responses of the nurses who have experience working in both ICU and non-ICU settings, scores were analyzed in relation to present position held (table 14). The only significant difference was in the Number of adjectives checked, in which those currently in the ICU scored higher (t = 2.45, p<.05).

However, in comparing these nurses with those who have worked solely in either non-ICU or ICU, several significant results were obtained (table 13 and 14). Among the non-ICU nurses, those who have been in the ICU scored higher in Personal adjustment (t = 2.29, p < .05) and in Affiliation (t = 2.28, p < .05). Among the ICU nurses, those who worked solely in the ICU scored higher in Aggression than those who have had experience in the non-ICU (t = 2.16, p < .05).

To examine any effect that the level of education may have, mean scores were computed (table 15) for nurses who have a diploma, associate degree in nursing (A.D.N.), or baccalaureate degree in nursing (B.S.N.). The mean score of the nurses with a diploma were significantly higher than that of nurses with an associate degree (t = 2.64 , p<.05), and that of nurses with a baccalaureate degree (t = 2.31, p4.05), with regard to the Heterosexuality scale. were also differences in scores between diploma and associate degree nurses in the ICU (tables 16 and 17), in Number of favorable adjectives checked (t = 2.12, p<.05), Selfcontrol (t = 2.08, p<.05), Personal adjustment (t = 2.23, p < .05), Heterosexuality (t = 3.03, p < .05), and Succorance (t = 2.20, p<.05), with the diploma nurses scoring higher in the first four and the associate degree nurses scoring higher in Succorance.

Holding the variable of education constant, the mean scores of nurses in the ICU and in the non-ICU were then compared (tables 16, 17, and 18). Six scales were significantly different among associate degree nurses: non-ICU nurses scored higher in Number of favorable adjectives checked (t = 2.77, p<.05), Self-control (t = 3.36, p<.01), Personal adjustment (t = 2.30, p<.05). Intraception (t = 2.93, p<.01), and Affiliation (t = 2.21, p<.05), whereas, ICU nurses scored higher in Number of unfavorable adjectives checked (t== 2.62, p<.05). There were no statistical differences among diploma nurses or among baccalaureate nurses in the ICU and in the non-ICU.

Thus, it was found (tables 16, 17, and 18) that nurses with a diploma tended to seek the company and derive emotional satisfaction from interactions with opposite-sexed peers more than nurses with an associate or baccalaureate degree. This may reflect the nurse's marital status, but unfortunately, this was not determined. Differences in educational achievement, in any case, were reflected within the ICU. Here, the personality profiles of diploma nurses were in sharp contrast to that of the associate degree nurses (tables 16 and 17). The associate degree nurses appeared to be more trusting and dependent on others for sympathy or affection. In contrast, the diploma nurses appeared to be more motivated by a strong

desire to do well and to impress others, but always by virtue of hard work and conventional endeavor. Thus, the diploma nurses scored higher in Self-control (i.e., conscientious, dependable, industrious, and stable) and Personal adjustment (i.e., practical, loyal, easily adaptable, and cheerful). As mentioned earlier they scored higher in the Heterosexuality scale.

Thus, the associate degree nurses appeared to have a unique personality profile. Indeed, in examining differences between ICU and non-ICU nurses holding the level of education constant (tables 16, 17, and 18), only those among the associate degree nurses were significant. Compared with associate degree ICU nurses, non-ICU nurses of the same education appeared to be more motivated by a desire to do well and to impress others. Thus, they scored higher in Self-control and Personal adjustment. appeared to seek and sustain numerous personal friendships and to engage in attempts to understand one's own behavior or the behavior of others. This indication that the associate degree non-ICU nurse is motivated by her desire to impress people (Number of favorable adjectives checked) was not expected. However, the higher response of the . associate degree ICU nurse in the Number of unfavorable adjectives checked supports this indication. A high response in Number of favorable adjectives checked also reflects a

high social desirability, that is, a sincere concern with behaving appropriately and with doing one's duty. Thus, the associate degree non-ICU nurse is oriented to other people's behavior and opinion. The associate degree ICU nurse, on the other hand, may be seen by others as rebellious, arrogant, careless, conceited, and cynical. To ascertain why these factors would not also differ among diploma and baccalaureate nurses, studies examining the differences between the various types of nursing programs and the type of students who would be enrolled in each should be performed. The differences in EPPS scores of studies mentioned earlier had not been attributed to type of nursing program. In reviewing those studies, no mention was made as to the educational background of the population studied.

Stauffacher and Navran (1968) had previously shown a correlation with the nurses' personality and her work preference, but not with her current position. The results of this study showed that there were no statistically significant differences between those preferring ICU and those preferring floor nursing (table 19). However, those preferring "other" (i.e., labor and delivery, hemodialysis, etc.) scored significantly lower than those preferring the floors in the Intraception scale (t = 2.50, p<.05). Further breakdown of ICU nurses was not done since virtually all of

those nurses who preferred to work in an area were actually working there.

In addition, one may expect any discrepancy between present work and work preference to be reflected in job satisfaction. Indeed, by F-testing, in seventeen scales there were significant differences among the definitely dissatisfied (DD), somewhat dissatisfied (SD), indifferent (I), satisfied (SAT), and very satisfied (VS) groups (table 20). These scales included the following: Number of adjectives checked, Number of favorable adjectives checked, Personal adjustment, Achievement, Dominance, Endurance, Order, Nurturance, Affiliation, Hetersexuality, Exhibitionism, Autonomy, Change, Succorance, Abasement, Deference, and Counseling readiness.

There were three groups in which there were a sufficient number of nurses to separate into ICU and non-ICU nurses: SD, SAT, and VS. There were significant differences between the ICU and non-ICU nurses in only the SAT and VS groups (tables 21 and 22). SAT ICU nurses scored higher than SAT non-ICU nurses in Number checked (t = 2.30, p<.05) and Succorance (t = 3.25, p<.01) and lower in Defensiveness (t = 2.13, p<.05), Number of favorable adjectives checked (t = 2.64, p<.05), Personal adjustment (t = 2.42, p<.05), Intraception (t = 2.13, p<.05), and Affiliation (t = 2.53, p<.05). In addition,

VS ICU nurses scored lower in Number of favorable adjectives checked (t = 4.57, p<.001), Self-confidence (t = 2.73, p<.05), Lability (t = 2.31, p<.05), and Achievement (t = 2.39, p<.05).

Summary

The responses of thirty-eight ICU nurses and twenty-two floor nurses to the ACL were analyzed by using the Student's t-test, chi-square, and the F-test. The null hypothesis that there is no difference in the personality characteristics of nurses who work in ICU's as compared to the nurses working in non-ICU's was accepted. That these two populations were homogenous was supported by the lack of differences in age, sex, highest educational attainment, length of nursing experience, present position held, and degree of satisfaction. As for preference for ICU or non-ICU work location, those who were working in the ICU preferred the ICU's, and those who were working on the floor, preferred the floors.

Not controlling for variables, there was no difference between the personality profiles of ICU and non-ICU nurses. However, several factors were found to influence the nurses' scores: age; educational achievement, present position, previous experience in nursing, and degree of satisfaction. The role of these factors in

determining the nurses' personality profiles was discussed.

Further implications, a summary, and a discussion of future studies will be presented in the next chapter.

CHAPTER V

SUMMARY, RECOMMENDATIONS, IMPLICATIONS AND CONCLUSIONS

Summary

A non-experimental, comparative research study was conducted for the purpose of determining if differences exist in the personality characteristics of nurses who work in ICU's as compared with the nurses who work in non-ICU's, utilizing the Adjective Check List (appendix A).

The ACL, developed by Harrison Gough, consists of a 300 word list of adjectives from which the subjects marked those that were self-descriptive. They were then scored on twenty-four indices. A Personal Information Questionnaire (PIQ, appendix D) was also completed by each subject. The results of the PIQ showed that thirty-eight nurses from ICU's and twenty-two nurses from the floors of a large, private, teaching hospital were not significantly different with respect to age, sex, education, previous experience, present position, and degree of satisfaction.

The null hypothesis, that there is no significant difference between ACL personality profiles of ICU nurses and those of non-ICU nurses, was accepted in this study. A similar result was obtained by Gentry et al (1972), using the MMPI and a measure of self-concept. However, they did

not control for age or educational achievement. In this study, which controlled for these two factors, significant differences were found to exist between ICU and non-ICU nurses. These differences were identified and discussed in Chapter IV. Specifically, greater differences were found with increasing age. In addition, there were significant differences between the associate degree ICU and non-ICU nurses and between the diploma ICU and non-ICU nurses.

Personality differences among the ICU nurses were also identified and discussed. Important variables included the nurses' previous experience and her degree of satisfaction with her present job. The nurses who had worked solely in the ICU or in the non-ICU were different from those with experience in both areas in Defensiveness, Number of unfavorable adjectives checked, Personal adjustment, Intraception, Nurturance, Exhibitionism, and Aggression. Among satisfied and very satisfied nurses the significant differences were in the areas of Number of adjectives checked, Defensiveness, Number of favorable adjectives checked, Succorance, Personal adjustment, Intraception, Affiliation, Self-confidence, Lability, and Achievement.

Recommendations

Since the results of this study are inconclusive, the following recommendations are given:

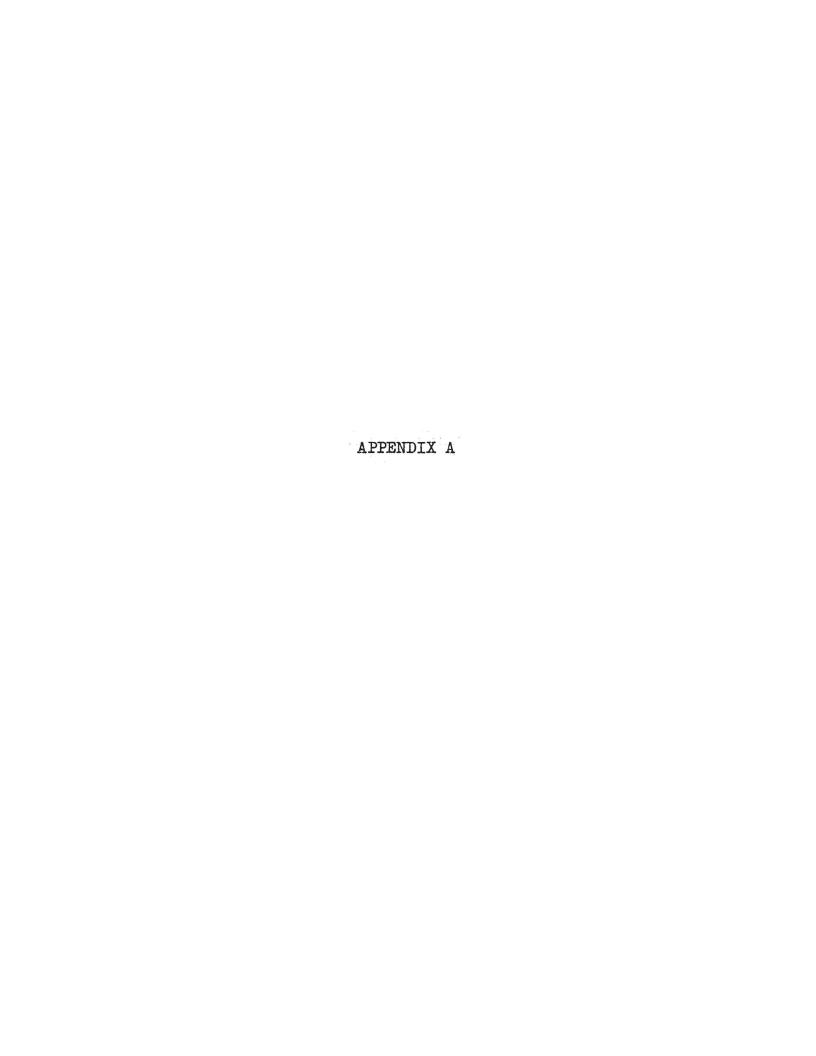
- 1. Further investigation be made concerning the personalities of nurses in ICU and non-ICU settings using larger sample populations, other types of agencies, and different critical care settings.
- Replication of this study, using the ACL or other instruments, with larger sample populations to confirm the findings obtained.
- 3. Longitudinal investigation be made of personality changes beginning with student nurses.
- 4. Additional research to investigate the relationship of specific ICU stresses to personality differences.
- 5. Further studies to examine the influence of the nurse's previous experience and her specific reason(s) for choosing ICU or non-ICU nursing.
- 6. Investigation concerning the role of marital status in the nurse's personality.

Implications

- Instructors of ICU nursing should be aware possible personality differences between ICU and non-ICU nurses.
- Screening may be possible for students and nurses who wish to be involved in ICU nursing.
- 3. Administrators and supervisors should be aware of possible personality differences of nurses on the floor, in the ICU, and in specific ICU settings to provide more effective guidance.

Conclusions

This study concludes that there are no significant differences in personality profiles between ICU and non-ICU nursing subjects in this sample. However, some differences were apparent when the variables of age and education were controlled. Other factors also influenced the differences in personality characteristics between the nurses. These include the nurse's previous experience and her degree of satisfaction with her present job. Further study is needed to identify the exact role of these variables in determining the nurse's personality profile.



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| 151 () mild | 181 O practical | 211() sarcastic | 241 () sophisticated | 271() tough | |
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| 152 O mischievous | 182() praising | 212() self-centered | 242() spendthrift | 272() trusting | |
| 153 () moderate | 183 O precise | 213() self-confident | 243 O spineless | 273() unaffected | |
| 154 O modest | 184 O prejudiced | 214() self-controlled | 244 O spontaneous | 274 O unambitious | 10 m |
| 155 O moody | 185 O preoccupied | 2150 self-denying | 245 O spunky | 275 unassuming | |
| 156 O nagging | 186 O progressive | 216() self-pitying | 246 O stable | 276 unconventional | |
| 157 () natural | 187 O prudish | 217 self-punishing | 247 O steady | 277 O undependable | |
| 158 O nervous | 188 Q quarrelsome | 218 self-seeking | 248 () stern | 278 understanding | |
| 159 noisy | 189 O quarersome | 219() selfish | 249 Stingy | 279() unemotional | |
| 160 obliging | 190 O quick | 220 sensitive | 250 O stolid | 280 unexcitable | |
| 161 O obnoxious | 191 O quiet | 221 sentimental | 251 () strong | 281 O unfriendly | |
| • | 197 Quiet | 222 Serious | 251 O strong | 282 O uninhibited | |
| 162 O opinionated | 192 Quitting | 223() severe | 252 O stubborn | 283 unintelligent | |
| 163 O opportunistic | 194 () rattlebrained | 224() sexy | 254 O suggestible | 284 O unkind | |
| 165 () organized | 195 O realistic | 225() shallow | 255 () sulky | 285() unrealistic | |
| 166 O original | 196 () reasonable | 226() sharp-witted | 256 () superstitious | 266 O unscrupulous | |
| 167 O outgoing | 197 () rebellious | 227 shiftless | 257 O suspicious | 287 O unselfish | |
| 168 O outspoken | 198 () reckless | 229() show-off | 258 () sympothetic | 288 O unstable | |
| 169() painstaking | 199 reflective | 229 shrewd | 259 O tactful | 289() vindictive | |
| 170 patient | 200() relaxed | 230() shy | 260 () tactless | 290 versatile | |
| 171 peaceable | 201 O reliable | 231() silent | 261 O talkative | 291 O warm | |
| ~ 1 | • | | | The second secon | |
| 172() peculiar | 202 O resentful | 232() simple | 262 O temperamental | 292() wary | |
| 173 persevering | 203 O reserved | 233() sincere | 263 () tense | 293() weak | |
| 174() persistent | 204 O resourceful | 234() slipshod | 264 () thankless | 294 O whiny | |
| 175 pessimistic | 205 O responsible | 235() slow | 265 O thorough | 295 Wholesome | |
| 176 O planful | 206 O restless | 235 () sly | 266 O thoughtful | 296 O wise | |
| 177 O pleasant | 207 O retiring | 237 O smug | 267 O thrifty | 297 O withdrawn | 1,0 |
| 178 O pleasure-seeking | | 238() snobbish | 268 () timid | 298() witty | The second second |
| 179 O poised | 209 O robust | 239 O sociable | 269 O tolerant | 299O worrying | |
| 180 Opolished | 210 rude | 240 O soft-hearted | 270 O touchy | 300 Zany | |
| | | | | | |



Definitions and Description of Indices and Scales of the ACL*

- Total number of adjectives checked (No. Ckd) -Subjects differ in the total number of adjectives checked. The tendency to check more or fewer words reflects certain personological dispositions. Checking many adjectives reflects surgency and drive, and a relative absence of repressive tendencies. Correlation with intelligence, however, is slightly negative, so that the exuberance in behavior may possibly be derived from shallowness and inattention to ambiguities than from a deep level of involvement. The high-scorer tends to be emotional, adventurous, wholesome, conservative, enthusiastic, frank, and helpful. active, means well, but tends to blunder. The lowscorer tends to be quiet and reserved, more tentative and cautious, and is more apt to think originally and inventively.
- 2. Defensiveness (Df) The higher-scoring person is apt to be self-controlled and resolute in attitude and behavior. The lower-scoring subject tends to be apprehensive, critical of himself and others, and given to complaints about his circumstances.
- Number of favorable adjectives checked (Fav) The subject who checks many of the words in a list of 75 adjectives, determined to be favorable, tends to be motivated by a strong desire to do well and to impress others, but always by virtue of hard work and conventional endeavor. He is described as dependable, steady, conscientious, and serious. The social desirability component appears to be a sincere concern with behaving appropriately and with doing one's duty. The low-scoring subject is more of an individualist. He is described as clever, sharp-witted, headstrong, pleasure-seeking, and original in thought and behavior.
- 4. Number of unfavorable adjectives checked (Unfav) The checking of unfavorable adjectives does not derive from a sense of self-effacement or humility, but more from an impulsive lack of control over the hostile and unattractive aspects of one's personality. The high-scoring individual is rebellious, arrogant, conceited, and cynical, tending to be a disbeliever and a skeptic. The low-scorer is more placid, more obliging, mannerly, and tactful.
- * From H.C. Gough and A.B. Heilbrun, <u>The Adjective Check List Manual</u> (Palo Alto, California: Consulting Psychologists Press, 1971). pp. 7-11.

- 5. Self-confidence (S-Cfd) The higher-scoring person is assertive, affiliative, outgoing, and an actionist who wants to get things done. He makes a distinct impression on others, who see him as forceful, self-assured, determined, and ambitious. The lower-scoring person is a much less effective person who prefers inaction; others see him as mild, reserved, pre-occupied.
- 6. Self-control (S-Cn) High scorers tend to be serious, sober individuals, interested in and responsive to their obligations. They are seen as diligent, practical, and loyal workers. The low scorer is an inadequately socialized person, headstrong, irresponsible, complaining, disorderly, and impulsive.
- 7. Lability (Lab) The high scorer is seen both favorably as spontaneous and unfavorably as excitable, tempermental, restless, nervous, and high-strung. The lower scorer is more phlegmatic, planful, and conventional. He is described by observers as thorough, organized, steady, and unemotional.
- 8. Personal adjustment (Per Adj) The high scorer is seen as dependable, peaceable, trusting, friendly, practical, loyal, and he fits in well, asks for little, and works enterprisingly toward his own goals. The low scorer is seen as aloof, defensive, anxious, inhibited, worrying, withdrawn, and unfriendly.
- 9. Achievement (Ach) Defined as "to strive to be outstanding in pursuits of socially recognized significance." The high-scoring subject is usually seen as intelligent and hard-working, determined to do well, and usually succeeds, motivated and goal-centered. The low-scorer is more skeptical, uncertain about risking his efforts; he tends also to be somewhat withdrawn and dissatisfied with his current status.
- 10. Dominance (Dom) Defined as "to seek and sustain leadership roles in groups or to be influential and controlling in individual relationships." The high-scorer is forceful, strong-willed, and persevering. He is confident of his ability to do what he wishes. The low-scorer is unsure of himself, and avoids situations requiring decision-making.
- 11. Endurance (End) Defined as "to persist in any task undertaken." The subject high on this scale is self-controlled, precise, patient, perservering, and rigid.

- The low-scorer is erratic, impatient, intolerant of prolonged effort or attention, and apt to change in an abrupt manner.
- 12. Order (Ord) Defined as "to place special emphasis on neatness, organization, and planning in one's activities." High-scorers are sincere, dependable, methodical, cautious. Low-scorers are quicker in temperament and reaction, and often impulsive preferring variety, and dislike delay and deliberation.
- 13. Intraception (Int) Defined as "to engage in attempts to understand one's own behavior or the behavior of others." The high-scorer is reflective, insightful, mature, sensitive. The low-scorer tends toward aggressiveness, and quickly becomes bored or impatient with any situation where direct action is not possible. He is a doer, not a thinker.
- 14. Nurturance (Nur) Defined as "to engage in behaviors which extend material or emotional benefits to others."
 High scores are earned by subjects who are helpful, nurturant, benevolent, self-disciplined, and dependable. The low-scorer is skeptical, self-centered and not attentive to the feelings and wishes of others.
- 15. Affiliation (Aff) Defined as "to seek and sustain numerous personal friendships." The high-scorer is adaptable and anxious to please, and considerate, cooperative, and mannerly. The low-scorer is individualistic, strong-willed, independent, and may be restless in any situation which intensifies or prolongs his contacts with others.
- 16. Heterosexuality (Het) Defined as "to seek the company of and derive emotional satisfactions from interactions with opposite-sexed peers." The high-scorer is interested in the opposite sex as he is interested in most things around him in a healthy, direct, and outgoing manner. The low-scorer thinks too much; he tends to be inhibited, dispirited, shrewd and calculating in his interpersonal relationships.
 - 17. Exhibitionism (Exh) Defined as "to behave in such a way as to elicit the immediate attention of others."

 Persons who are high on this scale tend to be self-centered, self-assured, and even narcissistic. They are able to meet situations with aplomb, but at the same time are quick-tempered and irritable. In their

dealings with others they are apt to be manipulative. Persons who score low tend toward apathy, self-doubt, inhibition, and shrink from any encounter in which they will be "on stage."

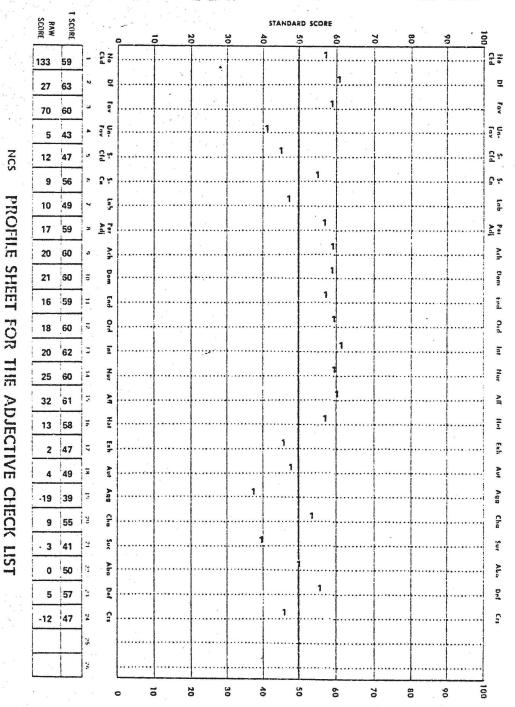
- 18. Autonomy (Aut) Defined as "to act independently of others or of social values and expectations." The high-scorer is independent and autonomous, but also assertive and self-willed; he tends to be indifferent to the feelings of others and heedless of their preferences when he himself wishes to act. The low-scorer is subdued, often taking the dictates of others because he lacks the initiative.
- 19. Aggression (Agg) Defined as "to engage in behaviors which attack or hurt others." The individual high on this scale is competitive; his impulses are strong and he seeks to win viewing others as rivals. The individual who is low on aggression is more of a conformist tending to be diligent and sincere in his relationships with others.
- 20. Change (Cha) Defined as "to seek novelty of experience and avoid routine." Persons high on this scale are spontaneous individuals who comprehend problems and situations rapidly and incisively and who take pleasure in variety, disorder, and complexity. The low-scorer seeks stability and continuity in his environment, and is apprehensive of ill-defined and risk-involving situations.
- 21. Succorance (Suc) Defined as "to solicit sympathy, affection, or emotional support from others." The high-scorer is dependent on others, seeks support and is somewhat naive in its faith in the benevolence of others. The low-scorer is independent, resourceful, and self-sufficient; and he has a sort of quiet confidence in his own worth and capability.
- 22. Abasement (Aba) Defined as "to express feelings of inferiority through self-criticism, guilt, or social impotence." High-scorers are not only submissive and self-effacing, but also appear to have problems of self-acceptance. They see themselves as weak and undeserving. Their behavior is often self-punishing in the hope of forestalling criticism and rejection from others. The low-scorer is optimistic, poised, productive, and decisive; his manner is confident and his behavior effective.

- 23. Deference (Def) Defined as "to seek and sustain subordinate roles in relationship with others." The individual who scores high on this scale is conscientious, dependable, and persevering. He is self-denying out of a preference for anonymity and freedom from stress and external demands. He attends modestly to his affairs, seeking little, and yielding always to any reasonable claim by another. The individual with a low score is more energetic, spontaneous, and independent; he likes attentions, likes to supervise and direct others, and to express his will.
- 24. Counseling readiness (Crs) The high scorer is predominantly worried about himself and ambivalent about his status. He feels left out of things and unable to enjoy life to the full. He tends to be preoccupied with his problems and pessimistic about his ability to resolve them. The low-scorer is more self-confident, poised, and outgoing. He seeks the company of others, likes activity, and enjoys life in an uncomplicated way.



SUBJECT NAME

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STANDARD SCORE

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Reproduced from the Manual for the Adjective Cheek List, by Harrison G. Gough. Ph.D. and Alfred B. Heilbrun, J., Ph.D.

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Personal Information Questionnaire I.D. #___ Age ___ Sex ___ Present assigned unit ____. Present position: Staff Head Other, title Length present position held: ____years Check one: ___ I am permanently assigned to this unit ___I am floating: between ICU's___ between floors I prefer to work in: ICU's floors other, designate: Highest degree earned in nursing: Years actively employed since graduation: Years inactive: __ All previous nursing experience, duration and position(s): Area(s) Approximate duration (mos.) Position(s) ICU nursing floor nursing ___ other, list: Satisfaction with present position: (check one) ___definitely dissatisfied satisfied somewhat dissatisfied very satisfied indifferent Reasons for satisfaction, indifference, or dissatisfaction:

(Use back of page, if necessary).



TEXAS WOMAN'S UNIVERSITY RESEARCH INSTITUTE

DENTON. TEXAS 76204



BONE METABOLISM LABORATORY BOX 23546, TWU STATION PHONE (817) 387-5305

May 3, 1976

Ms. Penny Chin Texas Woman's University Houston Campus Houston, Texas

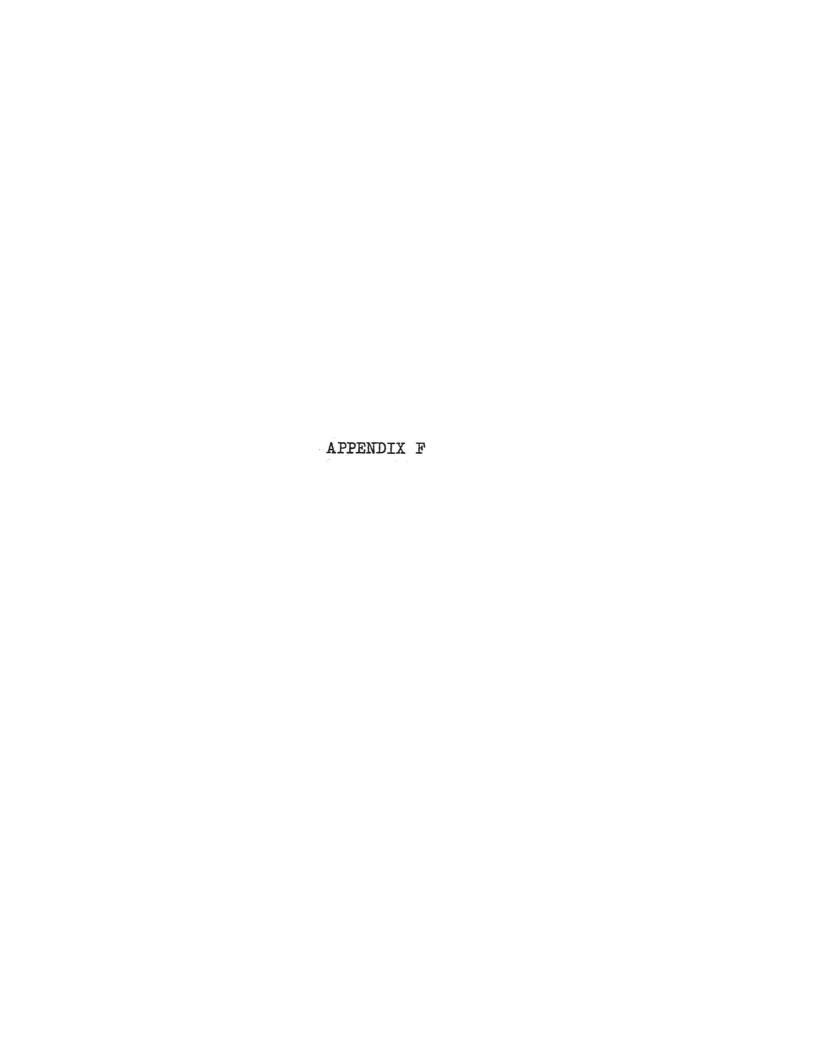
Dear Ms. Chin:

The Human Research Review Committee has reviewed and approved your protocol, "Personality profiles of nurses who work in intensive and non-intensive care units".

Sincerely yours

George P. Vose

Chairman, Human Research Review Committee



Oral Explanation of Study

My name is Penny Chin. I am a graduate medicalsurgical nursing student at Texas Woman's University. I have obtained full permission from this hospital to conduct a study.

The purpose of my investigation is to determine the personality profiles of nurses who work in the ICU's and those who work on the floors. Results of this study can potentially provide an approach to staffing as well as add to the body of knowledge in nursing research.

The following tools will be completed by each of you who are willing to participate. The Personal Information Questionnaire will provide information such as your sex, age, and past and present nursing experiences. The Adjective Check List is a 300 word, standardized list of adjectives which you will respond to by marking the appropriate spaces with a pencil. The total time required from start to completion is approximately twenty to thirty minutes.

The tools used will constitute no risk to the individual. No names will be required of you except for the purpose of providing written consent. A number will be randomly assigned to you for correlational purposes only. All information provided by you will be confidential. Should any results be released no individuals will be

identified. You have the option of withdrawing from this study at any time. Please do not talk to others about this study. Do you have any questions?



TEXAS WOMAN'S UNIVERSITY

(Form B -- Oral presentation to Subject)

Consent to Act as a Subject for Research and Investigation:

I have received an oral description of this study, including a fair explanation of the procedures and their purpose, any associated discomforts or risks, and a description of the possible benefits. An offer has been made to me to answer all questions about the study. I understand that my name will not be used in any release of the data and that I am free to withdraw at any time.

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| | Signature | Date |
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| Certification by Person 1 | Explaining the Study: | |
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| Witness | Date | |



TABLE 7

ACL PROFILE OF NURSES ACCORDING TO SITE OF EMPLOYMENT;
INTENSIVE CARE UNITS OR NON-INTENSIVE CARE UNITS

| Indice | Total (n=60) | Mean Score ICU (n=38) | Non-ICU (n=22) |
|--------------------------------------|---|--|---|
| No. Ckd Df Fav Unfav S-Cfd | 52.90 ± 10.27 51.95 ± 9.37 55.08 ± 9.75 48.40 ± 10.39 52.92 ± 12.33 | 55.11 ± 10.67 51.66 ± 9.72 53.61 ± 8.60 49.63 ± 11.14 | 49.14 ± 8.88 46.68 ± 11.66 57.64 ± 10.72 46.27 ± 8.68 54.50 ± 13.06 |
| S-Cn Lab Per Adj Ach Dom | 51.95 ± 8.89 46.82 ± 8.43 50.62 ± 8.33 54.97 ± 10.50 54.27 ± 12.36 | 54.39 ± 9.74 | 48.77 ± 8.87 47.80 ± 8.76 52.09 ± 7.69 55.95 ± 12.43 54.68 ± 13.40 |
| End Ord Int Nur Aff | 52.83 ± 8.57 52.92 ± 7.57 52.78 ± 8.53 51.05 ± 8.07 49.28 ± 8.24 | 52.32 ± 7.84 50.03 ± 8.84 50.03 ± 8.40 | 51.36 ± 9.44 53.95 ± 7.12 55.18 ± 7.78 52.27 ± 7.45 51.86 ± 8.88 |
| Het Exh Aut Agg Cha | 50.23 ± 10.22 50.71 ± 10.60 50.70 ± 10.92 51.11 ± 9.98 48.37 ± 9.09 | 50.74 ± 11.40 50.66 ± 11.99 50.92 ± 10.56 | 49.55 ± 10.14 51.00 ± 9.12 51.23 ± 9.37 47.18 ± 9.03 49.55 ± 8.39 |
| Suc Aba Def Crs | 47.50 ± 10.45 45.66 ± 11.88 49.08 ± 10.26 54.55 ± 8.64 | 46.74 ± 11.65 49.29 ± 11.08 | 44.59 ± 11.02 44.50 ± 12.15 48.73 ± 8.50 54.55 ± 6.20 |

TABLE 8

ACL PROFILE OF NURSES ACCORDING TO SPECIFIC INTENSIVE CARE UNIT

| Indice | CVRR (n=19) | Mean | Score ^a NICU (n=5) | CCU (n=5) | PICU (n=5) |
|---------|---------------|---------------|----------------------------------|---------------|---|
| No. Ckd | 54.68 ± 10.58 | 50.50 ± 6.60 | 59.60 ± 13.16 | 57.80 ± 14.92 | 53.00 ± 7.71 |
| Df | 49.63 ± 9.84 | 50.75 ± 8.26 | 49.20 ± 11.67 | 51.00 ± 9.90 | 52.00 ± 8.25 |
| Fav | 54.58 ± 8.22 | 53.75 ± 4.72 | 50.40 ± 12.74 | 54.00 ± 12.00 | 52.60 ± 9.84 |
| Unfav | 48.63 ± 10.30 | 52.00 ± 11.47 | 53.60 ± 9.61 | 45.80 ± 7.26 | 51.40 ± 17.10 |
| S-Cfd | 52.32 ± 11.19 | 53.75 ± 9.00 | 42.80 ± 13.41 | 54.80 ± 14.46 | 55.80 ± 12.39 |
| S-Cn | 53.11 ± 10.11 | 51.25 ± 9.11 | 44.20 ± 7.56 | 51.00 ± 12.63 | 52.40 ± 4.83 |
| Lab | 46.05 ± 7.55 | 51.75 ± 9.91 | 49.20 ± 8.47 | 44.00 ± 6.96 | 43.40 ± 9.89 |
| Per Adj | 51.26 ± 7.47 | 47.75 ± 13.74 | 47.80 ± 5.59 | 50.80 ± 9.44 | 46.60 ± 12.18 |
| Ach | 55.26 ± 8.07 | 55.75 ± 7.59 | 43.60 ± 12.30 | 57.20 ± 10.69 | 58.00 ± 9.95 |
| Dom | 54.37 ± 11.73 | 56.50 ± 9.47 | 44.00 ± 13.87 | 54.60 ± 11.13 | 60.20 ± 11.30 |
| End | 52.63 ± 7.96 | 51.50 ± 9.81 | 33.80 ± 15.35 | 54.60 ± 5.32 | 58.80 ± 3.63 |
| Ord | 53.26 ± 7.29 | 49.75 ± 6.70 | 44.60 ± 11.29 | 54.60 ± 7.77 | 55.00 ± 5.52 |
| Int | 52.26 ± 8.07 | 51.00 ± 11.60 | 46.20 ± 10.18 | 52.60 ± 10.36 | 52.40 ± 9.66 |
| Nur | 51.53 ± 8.66 | 52.50 ± 8.58 | 50.20 ± 5.76 | 50.40 ± 4.56 | 45.60 ± 12.87 |
| Aff | 48.74 ± 6.27 | 50. 5 ± 7.72 | 48.00 ± 6.44 | 47.40 ± 9.86 | 42.00 ± 10.70 |
| Het | 52.16 ± 11.02 | 52.50 ± 8.70 | 52.00 ± 11.0 | 50.00 ± 11.38 | 42.60 ± 5.77 50.00 ± 9.22 55.80 ± 14.57 57.60 ± 9.79 41.60 ± 7.02 |
| Exh | 48.32 ± 12.75 | 52.25 ± 13.30 | 48.40 ± 11.55 | 51.80 ± 10.49 | |
| Aut | 49.63 ± 12.95 | 53.50 ± 13.58 | 48.00 ± 7.52 | 49.80 ± 7.92 | |
| Agg | 51.16 ± 12.22 | 50.75 ± 15.26 | 48.60 ± 6.77 | 51.80 ± 6.80 | |
| Cha | 49.37 ± 9.01 | 49.50 ± 11.96 | 48.20 ± 12.64 | 45.40 ± 9.39 | |

TABLE 8 (Continued)

Mean Scorea

| Indice | CVRR (n+19) | MSICU (n=4) | NICU (n=5) | CCU (n=5) | PICU (n=5) |
|--------------------------|--|---|-----------------------------------|---------------|---|
| Suc Aba Def Crs | 48.32 <u>+</u> 12.50 50.42 <u>+</u> 10.98 | 47.75 ± 8.50 42.00 ± 11.92 49.50 ± 13.72 52.00 ± 14.45 | 50.60 ± 8.56 53.60 ± 6.69 | 46.00 ± 10.60 | 43.20 ± 10.76 41.40 ± 13.71 40.80 ± 15.02 58.00 ± 9.82 |

aCVRR = cardiovascular recovery room, NSICU = medical-surgical intensive care unit, NICU = neurological intensive care unit, CCU = coronary care unit, PICU = pulmonary intensive care unit.

TABLE 9

ACL PROFILE OF NURSES ACCORDING TO THREE AGE GROUPS

| Indice 2 | | ean Score 25-29 years (n=27) | 30 years and above (n=7) |
|--|--|---|---|
| No. Ckd Df Fav Unfav S-Cfd | 54.85 ± 8.69 48.00 ± 10.43° 52.77 ± 9.92 51.04 ± 10.64° 52.31 ± 11.46 | | 54.14 ± 10.21 _a 58.14 ± 11.13 ^a 61.43 ± 12.38 _a 42.43 ± 5.94 _a 63.43 ± 12.03 ^a |
| S-Cn Lab Per Adj Ach Dom | 48.04 ± 9.28^{b} 48.54 ± 8.44 48.23 ± 8.44 $53.38 \pm 11.32_{a}$ 53.42 ± 12.02^{a} | 55.04 ± 6.60^{b} 45.78 ± 7.65 51.89 ± 7.62 $53.78 \pm 8.61_{a}$ 52.41 ± 12.08 | 54.57 ± 10.61 45.71 ± 10.37 54.57 ± 9.18 65.43 ± 9.22 64.57 ± 11.13 |
| End Ord Int Nur Aff | 49.00 ± 10.59 ^a 50.54 ± 9.56 50.58 ± 9.60 48.69 ± 7,84 48.38 ± 7.53 | 54.81 ± 4.06 ^a 54.48 ± 4.37 53.74 ± 7.08 52.64 ± 8.39 48.55 ± 8.43 | 59.43 ± 7.14 ^a 55.71 ± 7.43 57.29 ± 8.08 54.57 ± 5.13 53.86 ± 9.74 |
| Het Exh Aut Agg Cha | 50.88 ± 10.23 52.58 ± 10.37 54.00 ± 11.27 53.92 ± 10.04 51.12 ± 9.33 | 49.15 ± 10.63 48.85 ± 11.30 47.67 ± 11.16 48.22 ± 10.53 45.33 ± 8.58 | 52.00 ± 9.49 52.00 ± 7.81 51.57 ± 6.21 51.71 ± 4.89 49.86 ± 7.38 |
| Suc Aba Def Crs | 49.38 ± 12.66 44.73 ± 12.53 47.27 ± 10.41 55.23 ± 8.86 | 47.52 ± 7.28 _a 48.74 ± 10.50 _a 51.81 ± 10.50 53.89 ± 8.95 | 40.43 ± 10.11 _a 38.14 ± 10.82 ^a 45.29 ± 6.42 54.57 ± 7.50 |

ap<0.05

bp<0.001

TABLE 10

ACL PROFILE OF NURSES AGED 22 TO 24 YEARS ACCORDING TO SITE OF PRESENT EMPLOYMENT

| Indice | CVRR (n=9) | Mean Score Other (n=7) | | Non-ICU (n=10) |
|---------|---------------|---------------------------|---------------|----------------|
| No. Ckd | 57.22 ± 10.62 | 52.43 ± 5.62 | 55.13 ± 8.88 | 54.40 ± 8.83 |
| Df | 48.78 ± 11.73 | 47.86 ± 10.21 | 48.38 ± 10.66 | 47.40 ± 10.59 |
| Fav | 52.13 ± 10.37 | 50.29 ± 10.19 | 51.13 ± 9.64 | 55.40 ± 10.29 |
| Unfav | 51.33 ± 12.53 | 53.14 ± 10.78 | 52.13 ± 11.45 | 49.30 ± 9.52 |
| S-Cfd | 51.56 ± 10.50 | 51.29 ± 13.76 | 51.44 ± 11.60 | 53.70 ± 11.71 |
| S-Cn | 48.11 ± 11.69 | 45.00 ± 7.68 | 46.75 ± 9.95 | 50.10 ± 8.17 |
| Lab | 47.78 ± 9.07 | 50.00 ± 9.90 | 48.75 ± 9.18 | 48.20 ± 7.57 |
| Per Adj | 48.11 ± 8.15 | 45.43 ± 8.79 | 46.94 ± 8.26 | 50.30 ± 8.74 |
| Ach | 52.67 ± 7.79 | 51.29 ± 15.43 | 52.06 ± 11.32 | 55.50 ± 11.58 |
| Dom | 52.78 ± 9.65 | 53.71 ± 15.46 | 53.19 ± 12.06 | 53.80 ± 12.66 |
| End | 48.56 ± 9.51 | 47.43 ± 12.47 | 48.06 ± 10.53 | 50.50 ± 11.07 |
| Ord | 50.56 ± 9.46 | 47.57 ± 10.63 | 49.25 ± 9.76 | 52.60 ± 9.34 |
| Int | 50.44 ± 7.86 | 47.57 ± 12.53 | 49.19 ± 9.89 | 53.80 ± 9.82 |
| Nur | 48.11 ± 11.01 | 49.14 ± 5.87 | 48.56 ± 8.87 | 48.90 ± 6.28 |
| Aff | 47.11 ± 6.51 | 46.86 ± 6.89 | 47.00 ± 6.45 | 50.60 ± 8.90 |
| Het | 53.56 ± 11.57 | 52.14 ± 10.12 | 52.94 ± 10.62 | 47.60 ± 9.11 |
| Exh | 50.78 ± 13.35 | 55.86 ± 7.78 | 53.00 ± 11.22 | 51.90 ± 9.36 |
| Aut | 54.56 ± 14.18 | 54.00 ± 11.06 | 54.31 ± 12.50 | 53.50 ± 9.58 |
| Agg | 54.11 ± 13.79 | 54.29 ± 8.99 | 54.19 ± 11.57 | 53.50 ± 7.52 |
| Cha | 53.44 ± 10.94 | 50.57 ± 10.24 | 52.19 ± 10.39 | 49.40 ± 7.52 |

TABLE 10 (Continued)

Mean Score

| Indice CVRR (n=9) | Other (n=7) | Total ICU (n=16) | Non-ICU (n=10) |
|-------------------|---------------|------------------|----------------|
| Suc 51.22 ± 12.78 | 49.43 ± 11.46 | 50.44 ± 11.85 | 47.70 ± 14.35 |
| Aba 47.56 ± 12.93 | 42.43 ± 10.94 | 45.31 ± 12.00 | 43.80 ± 13.96 |
| Def 48.00 ± 11.28 | 45.86 ± 11.45 | 47.06 ± 11.02 | 47.60 ± 9.92 |
| Crs 55.10 ± 8.95 | 57.00 ± 13.93 | 55.94 ± 11.01 | 54.10 ± 3.67 |

TABLE 11

ACL PROFILE OF NURSES AGED 25 TO 29 YEARS ACCORDING TO SITE OF PRESENT EMPLOYMENT

| Indice | CVRR (n=10) | Mean Score | Total ICU (n=18) | Non-ICU (n=10) |
|--|--|---|---|---|
| No. Ckd Df Fav Unfav S-Cfd | 52.40 ± 10.55 56.00 ± 4.99 57.10 ± 5.97 46.20 ± 7.64 53.00 ± 12.68 | 55.50 ± 15.18 51.88 ± 6.17 53.38 ± 8.28 51.88 ± 15.08 50.00 ± 14.44 | 53.78 ± 12.50^{a} 54.17 ± 5.77 55.44 ± 7.12 48.72 ± 11.53 51.67 ± 13.16 | 44.56 ± 6.15 ^a 54.11 ± 6.53 56.11 ± 10.87 47.78 ± 8.06 49.00 ± 10.74 |
| S-Cn | 57.60 ± 5.97 | 52.38 ± 5.55 | 55.28 ± 6.22 | 54.56 ± 7.68 |
| Lab | 44.50 ± 5.95 | 47.63 ± 6.82 | 45.89 ± 6.36 | 45.56 ± 10.21 |
| Per Adj | 54.10 ± 5.80 | 49.25 ± 10.51 | 51.94 ± 8.33 | 51.78 ± 6.40 |
| Ach | 57.60 ± 7.96 | 52.13 ± 7.88 | 55.17 ± 8.18 | 51.00 ± 9.26 |
| Dom | 55.80 ± 13.69 | 51.75 ± 11.89 | 54.00 ± 12.72 | 49.22 ± 10.64 |
| End | 56.30 ± 3.83 | 55.38 ± 1.85 | 55.89 ± 3.07 | 52.67 ± 5.07 |
| Ord | 55.70 ± 3.59 | 53.63 ± 5.42 | 54.78 ± 4.48 | 53.89 ± 4.34 |
| Int | 53.90 ± 7.34 | 51.13 ± 7.30 | 52.67 ± 7.24 | 55.89 ± 6.60 |
| Nur | 54.60 ± 4.50 | 48.38 ± 11.03 | 51.83 ± 8.42 | 54.33 ± 8.56 |
| Aff | 50.20 ± 6.00 | 45.13 ± 9.54 | 47.94 ± 7.95 | 51.00 ± 9.50 |
| Het | 50.90 ± 10.97 | 48.00 ± 10.56 | 49.61 ± 10.57 | 48.22 ± 11.32 |
| Exh | 51.10 ± 12.33 | 47.25 ± 12.97 | 49.39 ± 12.40 | 47.78 ± 9.28 |
| Aut | 45.20 ± 10.72 | 51.13 ± 14.07 | 47.83 ± 12.31 | 47.33 ± 9.11 |
| Agg | 48.50 ± 10.82 | 51.38 ± 12.00 | 49.78 ± 11.11 | 45.11 ± 9.05 |
| Cha | 45.70 ± 4.92 | 42.38 ± 10.54 | 44.22 ± 7.84 | 47.56 ± 10.03 |

TABLE 11 (Continued)

Mean Score

| es: | Indice | CVRR (n=10) | Other ICU (n=8) | Total ICU (n=18) | Non-ICU (n=10) |
|-----|--------------------------|---|--|--|--|
| | Suc Aba Def Crs | $\begin{array}{c} 49.60 \pm 8.10 \\ 49.00 \pm 12.77 \\ 52.60 \pm 10.80 \\ 52.80 \pm 9.08 \end{array}$ | 48.5 ± 7.52 48.88 ± 11.95 49.88 ± 14.50 54.38 ± 10.06 | 49.11 ± 7.64 48.94 ± 12.05 51.39 ± 12.26 53.50 ± 9.27 | 44.33 ± 5.59 48.33 ± 7.47 52.67 ± 6.12 54.67 ± 8.76 |
| | | | | * | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |

ap<0.05

TABLE 12

ACL PROFILE OF NURSES AGED 30 YEARS OR MORE ACCORDING TO SITE OF PRESENT EMPLOYMENT

| Indice | Mean Score Total ICU (n=4) | Non-ICU (n=3) |
|--|--|---|
| No. Ckd Df Fav Unfav S-Cfd | | 45.33 ± 0.58 ^a 64.30 ± 6.11 69.67 ± 3.06 40.67 ± 4.62 _a 73.67 ± 4.73 |
| S-Cn Lab Per Adj Ach Dom | 52.25 ± 14.22 39.75 ± 8.18 51.25 ± 10.84 60.25 ± 8.46 57.50 ± 9.15 | 57.67 ± 3.06 53.68 ± 7.51 59.00 ± 5.00 72.33 ± 4.73 74.00 ± 3.61 |
| End Ord Int Nur Aff | 55.25 ± 6.24 53.50 ± 8.96 54.50 ± 10.21 52.50 ± 6.19 50.25 ± 11.35 | 65.00 ± 3.61 58.67 ± 4.73 61.00 ± 1.73 57.33 ± 1.15 58.67 ± 5.51 |
| Het Exh Aut Agg Cha | 46.00 ± 8.12^{a} 47.75 ± 7.41 48.75 ± 3.86 $50.50 \pm 6.56_{a}$ 45.25 ± 6.40^{a} | 60.00 ± 1.73 ^a 57.67 ± 4.04 55.33 ± 7.51 53.33 ± 0.58 _a 56.00 ± 1.73 ^a |
| Suc Aba Def Crs | 44.50 ± 11.27 42.50 ± 8.27 48.75 ± 1.26 53.75 ± 9.39 | 35.00 ± 6.24 32.33 ± 12.67 40.67 ± 8.08 55.67 ± 5.77 |

ap < 0.05

TABLE 13

ACL PROFILE OF NURSES ACCORDING TO PREVIOUS NURSING WORK EXPERIENCE

| * *, | | Mean Score | , |
|---|--|--|--|
| Indice bot | | Worked only in ICU (n=20) | Worked only in non-ICU (n=14) |
| No. Ckd 53.2 Df 54.2 Fav 56.2 Unfav 45.2 S-Cfd 51.2 | 25 ± 10.68 | 53.65 ± 10.71 | 50.36 ± 9.69 |
| | 54 ± 7.77 ^a | 48.95 ± 8.88 ^a | 50.71 ± 11.83 |
| | 17 ± 8.11 | 51.80 ± 8.86 | 57.01 ± 12.81 |
| | 56 ± 6.64 ^a | 52.50 ± 13.32 ^a | 47.57 ± 10.46 |
| | 25 ± 10.45 | 53.40 ± 13.49 | 53.86 ± 14.60 |
| S-Cn 53.8 | 83 ± 8.46 | 49.40 ± 9.29 | 53.86 ± 7.90 |
| Lab 46.1 | 79 ± 7.73 | 46.90 ± 8.68 | 47.71 ± 9.51 |
| Per Adj 53.4 | 42 ± 6.78 ^a | 47.65 ± 9.43 | 49.93 ± 8.62 |
| Ach 53.6 | 63 ± 8.32 | 54.75 ± 11.49 | 56.36 ± 12.95 |
| Dom 52.9 | 92 ± 10.95 | 55.20 ± 12.79 | 53.50 ± 14.47 |
| End 53.2 | 21 ± 6.82 | | 52.71 ± 10.98 |
| Ord 53.3 | 13 ± 5.64 | | 54.00 ± 8.73 |
| Int 54.6 | 63 ± 5.67 ^a | | 54.64 ± 8.90 |
| Nur 54.6 | 08 ± 7.89 ^a | | 50.86 ± 6.65 |
| Aff 51.3 | 13 ± 7.51 | | 50.07 ± 9.29 |
| Het 50.2 | 25 ± 8.51 | 51.30 ± 11.31 | 48.57 ± 11.46 |
| Exh 49.3 | 33 ± 9.73 ^b | 52.90 ± 11.51 | 48.29 ± 9.50 ^b |
| Aut 47.7 | 71 ± 10.11 | 53.45 ± 12.00 | 50.50 ± 9.91 |
| Agg 47.0 | 08 ± 9.10 ^b | 55.30 ± 11.09 | 50.71 ± 7.88 |
| Cha 48.0 | 08 ± 8.02 | 48.35 ± 10.99 | 49.07 ± 9.03 |
| Aba 47.2 Def 51.0 | +6 ± 8.40 29 ± 10.92 08 ± 10.30 79 ± 8.58 | 49.95 ± 11.23 45.00 ± 11.73 46.50 ± 10.86 55.05 ± 10.38 | 46.36 ± 13.07 46.71 ± 12.96 51.07 ± 8.32 56.07 ± 5.94 |

ap<0.05

bp40.01

TABLE 14

ACL PROFILE OF NURSES WHO HAVE WORKING EXPERIENCE IN BOTH ICU AND NON-ICU ENVIRONMENTS SEPARATED ACCORDING TO SITE OF PRESENT EMPLOYMENT

| | Mean Score | е |
|--|---|---|
| Indice | Presently in ICU (n=17) | Presently in Non-ICU (n=7) |
| No. Ckd Df Fav Unfav S-Cfd | 56.35 ± 10.95 ^a 53.94 ± 8.63 55.24 ± 8.66 46.18 ± 7.47 49.76 ± 10.06 | 45.71 ± 4.89^{a} 56.00 ± 5.42 58.43 ± 6.63 43.86 ± 3.98 54.86 ± 11.28 |
| S-Cn Lab Per Adj Ach Dom | 54.65 ± 8.66 47.38 ± 6.57 52.59 ± 7.46 53.29 ± 7.27 51.59 ± 10.25 | 51.86 ± 8.23 47.86 ± 8.49 56.14 ± 3.89 54.43 ± 11.12 56.14 ± 12.72 |
| End Ord Int Nur Aff | 53.00 ± 7.32 52.94 ± 6.42 54.00 ± 5.51 53.65 ± 7.54 49.76 ± 7.07 | 53.71 ± 5.91 53.57 ± 3.41 56.14 ± 6.20 55.14 ± 9.23 54.43 ± 8.08 |
| Het Exh Aut Agg Cha | 49.12 ± 9.18 47.18 ± 10.29 46.35 ± 10.69 46.76 ± 8.82 46.71 ± 7.98 | 53.00 ± 6.38 54.57 ± 5.94 51.00 ± 8.35 47.86 ± 10.43 51.43 ± 7.61 |
| Suc Aba Def Crs | 48.71 ± 8.40 49.88 ± 10.69 53.39 ± 9.53 53.41 ± 9.46 | 41.00 ± 5.77 41.00 ± 9.33 45.00 ± 9.52 51.29 ± 6.32 |

ap<0.05

TABLE 15

ACL PROFILE OF NURSES ACCORDING
TO HIGHEST DEGREE EARNED

| Indice | Diploma (n=9) | Mean Score ^a ADN (n=11) | BSN (n=38) |
|---------------------------------|--|---|--|
| No. Ckd | 53.44 + 10.44 | 50.36 + 6.67 | 53.50 + 11.26 |
| Df | 52.56 ± 8.96 | 48.91 ± 13.50 | 52.16 ± 8.05 |
| Fav | 53.33 ± 8.38 | 52.64 ± 13.13 | 55.32 ± 9.09 |
| Unfav | 46.67 ± 7.58 | 48.36 ± 8.16 | 49.32 ± 11.64 |
| S-Cfd | 56.78 ± 10.51 | 55.18 ± 15.35 | 50.74 ± 11.66 |
| S-Cn | 50.78 ± 8.44 | 49.18 ± 10.49 | 52.17 ± 8.71 |
| Lab | 49.33 ± 4.64 | 49.27 ± 7.63 | 45.89 ± 8.62 |
| Per Adj | 52.33 ± 6.86 | 48.00 ± 10.10 | 50.58 ± 8.20 |
| Ach | 55.22 ± 6.91 | 54.36 ± 15.27 | 54.71 ± 9.92 |
| Dom | 58.11 ± 6.09 | 54.09 ± 14.78 | 52.71 ± 12.57 |
| End | 52.67 ± 9.15 | 51.55 ± 12.14 | 52.84 ± 7.39 |
| Ord | 52.89 ± 5.71 | 48.64 ± 11.14 | 54.16 ± 6.59 |
| Int | 51.67 ± 5.55 | 50.91 ± 9.54 | 53.37 ± 9.03 |
| Nur | 49.89 ± 9.31 | 53.09 ± 8.79 | 50.47 ± 7.61 |
| Aff | 51.00 ± 9.11 | 50.45 ± 12.26 | 48.18 ± 6.70 |
| Het Exh Aut Agg Cha | 57.56 ± 5.15 ^b 55.33 ± 6.78 56.00 ± 11.81 52.44 ± 9.15 52.44 ± 6.00 | 49.90 ± 8.49 ^b 54.64 ± 7.20 52.09 ± 10.63 52.82 ± 10.59 46.45 ± 9.35 | 48.89 ± 10.95^{b} 48.68 ± 11.60 49.42 ± 11.12 50.34 ± 10.52 48.00 ± 9.60 |
| Suc | 42.56 ± 4.77 | 48.64 ± 11.27 | 48.79 ± 10.94 |
| Aba | 40.78 ± 7.38 | 44.27 + 11.66 | 48.36 + 12.17 |
| Def | 44.89 ± 9.31 | 48.00 ± 10.56 | 50.76 ± 10.32 |
| Crs | 52.44 ± 9.40 | 55.64 ± 8.79 | 54.86 ± 8.82 |

 $^{^{\}rm a}{\rm ADN}$ = associate degree in nursing, BSN = baccalaureate degree in nursing.

TABLE 16

ACL PROFILE OF NURSES WHOSE HIGHEST DEGREE ATTAINED WAS A DIPLOMA ACCORDING TO SITE OF PRESENT EMPLOYMENT

| | Mean | Score |
|---------------------------------|---|---|
| Indice I | Diploma - ICU (n=7) | Diploma - Non-ICU (n=2) |
| No. Ckd | 54.71 ± 11.69 | 49.00 ± 1.41 |
| Df | 52.14 ± 9.89 | 54.00 ± 7.07 |
| Fav | 54.86 ± 9.17 | 57.00 ± 7.07 |
| Unfav | 47.14 ± 8.19 | 45.00 ± 7.07 |
| S-Cfd | 58.43 ± 11.30 | 51.00 ± 5.66 |
| S-Cn | 50.43 ± 7.81 | 52.00 ± 14.14 |
| Lab | 50.43 ± 3.51 | 45.50 ± 7.78 |
| Per Adj | 51.00 ± 7.28 | 57.00 ± 1.41 |
| Ach | 55.57 ± 7.93 | 54.00 ± 0.00 |
| Dom | 58.86 ± 5.70 | 55.50 ± 9.19 |
| End | 53.00 ± 10.21 | 51.50 ± 6.36 |
| Ord | 52.86 ± 6.18 | 53.00 ± 5.66 |
| Int | 51.43 ± 5.83 | 52.50 ± 6.36 |
| Nur | 49.00 ± 9.18 | 53.00 ± 12.73 |
| Aff | 49.57 ± 9.85 | 56.00 ± 4.24 |
| Het Exh Aut Agg Cha | 58.00 ± 5.86 56.43 ± 6.40 56.00 ± 12.61 53.00 ± 8.56 51.71 ± 5.38 | 56.00 ± 13.51 51.50 ± 9.19 56.00 ± 12.73 50.50 ± 14.85 55.00 ± 9.90 |
| Suc | 44.13 ± 4.30 | 41.50 ± 7.78 |
| Aba | 41.00 ± 6.24 | 40.00 ± 14.14 |
| Def | 46.00 ± 7.81 | 41.00 ± 16.97 |
| Crs | 52.00 ± 10.74 | 54.00 ± 2.83 |

TABLE 17

ACL PROFILE OF NURSES WHOSE HIGHEST DEGREE ATTAINED WAS AN ASSOCIATE DEGREE ACCORDING TO SITE OF PRESENT EMPLOYMENT

| * | Mean Score |
|--|---|
| Indice | ADN - ICU (n=5) ADN - Non-ICU (n=6) |
| No. Ckd Df Fav Unfav S-Cfd | 52.20 ± 8.14 48.83 ± 5.50 92.40 ± 9.71 54.33 ± 14.54 43.60 ± 10.11^{a} 60.17 ± 10.65^{a} 43.80 ± 8.84^{a} 43.83 ± 4.07 48.60 ± 17.20 60.67 ± 12.46 |
| S-Cn Lab Per Adj Ach Dom | 41.20 ± 8.23^{b} 45.80 ± 8.20 41.80 ± 7.60^{a} 48.20 ± 15.80 59.50 ± 14.04 50.00 ± 15.83 55.83 ± 6.99^{b} 52.17 ± 6.37 53.17 ± 9.35^{a} 59.50 ± 14.04 57.50 ± 14.35 |
| End Ord Int Nur Aff | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ |
| Het Exh Aut Agg Cha | 46.40 ± 8.20 50.67 ± 9.81 54.20 ± 9.12 55.00 ± 6.07 53.20 ± 12.11 51.17 ± 10.30 49.33 ± 10.61 43.88 ± 11.73 48.67 ± 7.20 |
| Suc Aba Def Crs | 53.00 ± 10.15 47.20 ± 9.26 46.00 ± 12.83 59.40 ± 10.09 45.00 ± 11.70 41.83 ± 13.70 49.67 ± 9.18 52.50 ± 5.17 |

^ap<0.05 ^bp<0.01

TABLE 18

ACL PROFILE OF NURSES WHOSE HIGHEST DEGREE ATTAINED WAS A BACCALAUREATE DEGREE ACCORDING TO SITE OF PRESENT EMPLOYMENT

| | Mean Score |
|--|---|
| Indice | BSN - ICU (n=25) BSN - Non-ICU (n=13) |
| No. Ckd Df Fav Unfav S-Cfd | 55.52 ± 11.27 49.62 ± 10.58 52.60 ± 7.77 50.54 ± 8.34 55.12 ± 7.84 55.69 ± 11.46 49.88 ± 12.40 48.23 ± 10.39 50.60 ± 11.00 51.00 ± 13.29 |
| S-Cn Lab Per Adj Ach Dom | 53.36 ± 9.25 46.12 ± 8.40 50.83 ± 8.89 55.20 ± 8.92 53.24 ± 12.50 51.46 ± 7.75 45.46 ± 9.35 50.31 ± 7.41 53.77 ± 11.95 51.69 ± 13.16 |
| End Ord Int Nur Aff | 53.40 ± 6.92 51.77 ± 8.42 53.88 ± 7.10 54.69 ± 5.72 52.52 ± 9.12 55.00 ± 8.97 51.08 ± 8.39 49.31 ± 5.96 48.24 ± 6.53 48.08 ± 7.30 |
| Het Exh Aut Agg Cha | 49.72 ± 11.10 47.31 ± 10.93 48.84 ± 12.53 48.38 ± 10.05 48.84 ± 12.00 50.54 ± 4.56 50.48 ± 11.83 50.08 ± 7.85 47.64 ± 9.96 48.69 ± 9.21 |
| Suc Aba Def Crs | 50.36 ± 10.43 45.77 ± 11.68 48.80 ± 12.78 46.85 ± 11.54 50.84 ± 11.77 50.46 ± 7.24 54.96 ± 9.39 55.23 ± 7.55 |

TABLE 19

ACL PROFILES OF NURSES ACCORDING
TO WORK PREFERENCE

| Indice | ICU (n=38) | Mean Score Non-ICU (n=17) | "Other"(n=4)a |
|--------------------------|--|---|---|
| No. Ckd | 54.76 ± 10.72 | 49.88 ± 9.34 | 47.50 ± 8.70 |
| Df | 52.29 ± 8.45 | 53.00 ± 11.19 | 42.50 ± 5.80 |
| Fav | 54.14 ± 8.61 | 58.28 ± 12.34 | 48.50 ± 8.06 |
| Unfav | 48.24 ± 9.16 | 46.94 ± 9.94 | 58.50 ± 20.55 |
| S-Cfd | 52.19 ± 11.89 | 57.06 ± 13.25 | 43.00 ± 10.46 |
| S-Cn | 51.32 ± 9.33 | 53.59 ± 7.80 | 47.00 ± 9.52 |
| Lab | 46.76 ± 8.31 | 47.65 ± 9.26 | 47.75 ± 5.12 |
| Per Adj | 50.76 ± 7.96 | 51.82 ± 8.07 | 42.25 ± 10.81 |
| Ach | 54.61 ± 9.63 | 57.82 ± 12.82 | 46.50 ± 2.38 |
| Dom | 54.30 ± 12.11 | 56.53 ± 14.27 | 45.50 ± 4.51 |
| End | 52.53 ± 7.97 | 54.53 ± 10.04 | 47.75 ± 8.10 48.00 ± 6.22 44.75 ± 5.85 43.50 ± 10.91 42.75 ± 8.77 |
| Ord | 52.46 ± 7.67 | 54.47 ± 7.68 | |
| Int | 52.21 ± 8.50 | 55.71 ± 8.22b | |
| Nur | 51.11 ± 7.59 | 52.47 ± 7.73 | |
| Aff | 48.46 ± 7.05 | 51.94 ± 9.92 | |
| Het | 50.61 ± 10.20 | 49.47 ± 11.06 | 49.67 ± 11.68 |
| Exh | 50.82 ± 11.07 | 52.41 ± 9.21 | 45.75 ± 12.84 |
| Aut | 50.42 ± 11.93 | 52.06 ± 9.32 | 51.00 ± 12.57 |
| Agg | 50.84 ± 10.35 | 51.18 ± 8.43 | 56.00 ± 14.76 |
| Cha | 47.95 ± 8.97 | 49.06 ± 8.48 | 51.00 ± 15.81 |
| Suc Aba Def Crs | 48.08 ± 9.88 46.27 ± 11.90 49.22 ± 11.56 53.92 ± 10.15 | 44.76 ± 12.38 43.12 ± 12.70 48.65 ± 8.40 54.69 ± 5.56 | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ |

a "Other" preferences include hemodialysis and labor and delivery units.

bp<0.05

TABLE 20

ACL PROFILES OF NURSES ACCORDING TO SATISFACTION WITH PRESENT POSITION

| | | | | | 18. |
|--|--|---|--|---|--|
| | | ya wasan | Mean Score ^a | | and the second s |
| Indice | DD (n=3) | SD (n=10) | I (n=2) | SAT (n=30) | VS (n=13) |
| No. Ckd Df Fav Unfav S-Cfd | 54.00 ± 9.84 5 58.33 ± 10.06 5 48.00 ± 6.24 4 | 0.00 ± 13.63 50 2.90 ± 11.57 49 6.40 ± 12.48 46 | $0.00 \pm 1.41 5$ $0.00 \pm 0.00 5$ | 1.17 ± 9.01 0.63 ± 9.47 3.63 ± 9.47 0.00 ± 12.06 0.37 ± 12.08 | 56.73 ± 10.82 54.85 ± 4.20 58.46 ± 8.39 47.54 ± 8.05 57.23 ± 9.85 |
| S-Cn Lab Per Adj Ach Dom | 54.33 ± 12.74 5 54.67 ± 1.53 4 49.00 ± 13.00 4 56.67 ± 7.77 5 59.00 ± 9.85 5 | 5.70 ± 9.73 38 8.70 ± 9.19 50 3.60 ± 11.84 44 | $3.50 \pm 0.71 + 0.00 \pm 9.90 + 0.50 \pm 2.12 = 5$ | 1.40 ± 9.35 6.13 ± 8.32 9.97 ± 8.55 3.60 ± 10.51 3.03 ± 12.05 | 50.15 ± 7.21 48.69 ± 7.65 52.77 ± 5.70 59.38 ± 9.92 58.54 ± 11.47 |
| End Ord Int Nur Aff | $54.67 \pm 4.73 5$ $57.33 \pm 7.09 5$ $50.33 \pm 15.95 5$ | 1.00 ± 9.40 55 1.90 ± 8.58 48 0.90 ± 6.64 49 | $6.50 \pm 2.12 5$ $3.50 \pm 7.78 5$ $0.00 \pm 11.31 5$ | 2.27 ± 8.68 1.83 ± 8.00 1.63 ± 8.92 1.00 ± 8.94 9.97 ± 7.92 | 55.38 ± 7.43 55.54 ± 5.73 55.15 ± 8.46 51.54 ± 5.33 50.46 ± 8.16 |

TABLE 20 - Continued

| | | | Mean Score | | |
|--------|---------------|---------------|---------------|---------------|---------------|
| Indice | DD (n=3) | SD (n=10) | I (n=2) | SAT (n=30) | VS (n=13) |
| Het | 53.33 ± 12.06 | 49.00 ± 11.79 | 35.50 ± 10.61 | 49.76 ± 8.83 | 52.69 ± 11.50 |
| Exh | 52.33 ± 18.18 | 48.60 ± 9.86 | 39.50 ± 3.54 | 50.37 ± 10.01 | 54.15 ± 11.78 |
| Aut | 60.67 ± 15.28 | 49.90 ± 10.66 | 48.50 ± 17.68 | 49.47 ± 10.86 | 51.64 ± 10.51 |
| Agg | 53.00 ± 20.95 | 50.90 ± 7.81 | 48.50 ± 3.54 | 50.53 ± 11.07 | 52.23 ± 7.97 |
| Cha | 46.00 ± 7.55 | 49.10 ± 9.28 | 37.50 ± 7.78 | 49.43 ± 9.85 | 49.00 ± 5.97 |
| Suc | 45.00 ± 2.65 | 49.40 ± 14.71 | 47.00 ± 2.83 | 48.30 ± 12.69 | 46.38 ± 10.03 |
| Aba | 41.33 ± 13.58 | 48.40 ± 13.53 | 53.00 ± 9.90 | 46.17 ± 11.43 | 44.38 ± 11.70 |
| Def | 40.67 ± 17.56 | 51.30 ± 8.69 | 54.00 ± 9.90 | 49.73 ± 10.58 | 48.46 ± 10.65 |
| Crs | 56.33 ± 11.02 | 56.10 ± 6.62 | 51.00 ± 7.07 | 53.40 ± 8.75 | 55.92 ± 10.30 |

 $^{^{\}rm a}{
m DD}$ = definitely dissatisfied, SD = slightly satisfied, I = indifferent, SAT = satisfied, VS = very satisfied.

TABLE 21

ACL PROFILE OF NURSES WHO ARE SATISFIED WITH PRESENT POSITION ACCORDING TO SITE OF PRESENT EMPLOYMENT

| | Mean Score |
|--|--|
| Indice | SAT - ICU (n=19) SAT - Non-ICU (n=11) |
| No. Ckd Df Fav Unfav S-Cfd | 53.89 ± 9.68^{a} 46.45 ± 5.96^{a} 47.95 ± 10.60^{a} 55.27 ± 5.33^{a} 50.42 ± 10.08^{a} 59.18 ± 5.69^{a} 46.36 ± 7.47 48.26 ± 12.20 54.00 ± 11.57 |
| S-Cn Lab Per Adj Ach Dom | 50.74 ± 10.60 52.55 ± 7.61 45.00 ± 8.91 48.09 ± 7.52 47.26 ± 9.19^a 54.64 ± 4.23^a 52.16 ± 10.92 56.09 ± 10.03 50.89 ± 12.24 56.73 ± 11.67 |
| End Ord Int Nur Aff | 50.68 ± 9.75 55.00 ± 6.12 50.05 ± 9.43 54.91 ± 3.70 49.11 ± 9.67^a 56.00 ± 5.97^a 49.26 ± 9.34 54.00 ± 7.81 47.37 ± 7.43^a 54.45 ± 7.35^a |
| Het Exh Aut Agg Cha | 48.21 ± 10.28 52.45 ± 5.68 48.58 ± 10.74 53.45 ± 7.46 48.37 ± 12.13 51.36 ± 9.07 51.68 ± 12.17 48.55 ± 9.92 46.74 ± 11.50 51.36 ± 7.71 |
| Suc Aba Def Crs | 52.26 ± 10.24^{b} 49.05 ± 11.65 51.68 ± 10.23 54.00 ± 10.33 41.45 ± 5.20^{b} 41.18 ± 10.43 46.36 ± 9.34 52.36 ± 5.99 |

ap<0.05

bp<0.01

TABLE 22

ACL PROFILE OF NURSES WHO ARE VERY SATISFIED WITH PRESENT POSITION ACCORDING TO SITE OF PRESENT EMPLOYMENT

| | Mean Score | |
|--------------------------------------|---|--|
| Indice | VS - ICU (n=9) V | S - Non-ICU (n=4) |
| No. Ckd | 58.33 ± 12.11 | 50.75 ± 4.87 |
| Df | 54.33 ± 4.56 | 56.00 ± 3.56 |
| Fav | 54.11 ± 4.59 ^b | 68.25 ± 6.40b |
| Unfav | 49.56 ± 8.80 | 43.00 ± 3.56 |
| S-Cfd | 53.22 ± 8.84 ^a | 66.25 ± 4.79a |
| S-Cn Lab Per Adj Ach Dom | 49.00 ± 8.31 45.89 ± 7.39^a 51.33 ± 6.26 55.67 ± 9.29^a 55.44 ± 12.42 | 52.75 ± 3.30 55.00 ± 3.46 ^a 56.00 ± 2.31 67.75 ± 5.38 ^a 65.50 ± 4.65 |
| End | 53.89 ± 8.13 | 58.75 ± 2.99 |
| Ord | 54.33 ± 6.10 | 58.25 ± 2.63 |
| Int | 52.44 ± 8.05 | 61.25 ± 4.27 |
| Nur | 51.00 ± 6.61 | 52.75 ± 2.22 |
| Aff | 47.67 ± 7.76 | 56.75 ± 2.87 |
| Het | 52.67 ± 12.09 | 52.75 ± 9.78 |
| Exh | 54.22 ± 13.62 | 54.25 ± 8.22 |
| Aut | 49.33 ± 11.59 | 57.00 ± 5.48 |
| Agg | 52.00 ± 9.64 | 52.75 ± 2.36 |
| Cha | 48.67 ± 6.02 | 49.75 ± 6.70 |
| Suc | 49.00 ± 10.97 | 40.50 ± 3.87 |
| Aba | 46.44 ± 12.97 | 39.75 ± 7.59 |
| Def | 48.89 ± 12.82 | 47.50 ± 3.70 |
| Crs | 54.56 ± 11.51 | 59.00 ± 7.26 |

ap<0.05

bp<0.001

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